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Joint Printing Committee Asks Paper Bids

Will Be Opened December 2 and the Committee Will Meet One Week Later to Act on Awards —It is Estimated that 37,756,000 Pounds Will Be Used During the Six Months' Period Beginning January 1 As Compared with 30,050,000 Pounds During the Previous Three Months' Contract Period—Report of the Specifications Committee

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., October 23, 1935—Bids are to be opened by the Joint Congressional Committee on Printing on December 2 for a six months supply of paper for the Government Printing Office beginning January 1, next. A meeting to act on awards will be held one week later. It is estimated that 37,756,000 pounds will be used during that six months period compared with 30,050,000 pounds for the previous contract period of three months.

Varieties of Paper Required

The paper on which bids are being asked will include the following:

1,500,000 pounds newsprint paper; 3,860,000 pounds machine-finish book paper; 100,000 pounds antique book paper; 220,000 pounds lightweight machine-finish book paper; 210,000 pounds 50 per cent rag machine-finish book paper; 15,000 pounds 75 per cent rag laid antique book paper; 20,000 pounds 100 per cent rag machine-finish book paper; 1,160,000 pounds supercalendered book paper; 50,000 pounds half-tone book paper; 225,000 pounds coated book paper; 20,000 pounds lithograph paper; 2,870,000 pounds mimeograph paper; 400,000 pounds U S M O safety writing paper; 8,000 pounds U S M O writing paper; 10,000 pounds safety writing paper; 6,077,500 pounds writing paper; 295,000 pounds map paper; 1,177,000 pounds manifold paper; 7,030,000 pounds bond paper; 862,000 pounds ledger paper; 1,056,000 pounds index paper; 2,500 pounds tissue paper; 250,000 pounds cover paper; 460,000 pounds manila paper; 870,000 pounds kraftpaper; 1,000 pounds paraffin paper; 300,000 sheets gummed paper; 164,000 pounds blotting paper; 3,000 pounds stereotype molding paper; 15,000 pounds oiled manila tympan paper; 2,000 pounds plate-wiping paper; 2,000 pounds back-lining paper, for case making; 7,000 pounds high finish red sulphite; 150,000 pounds manila tag board; 900,000 pounds calendered tag board; 40,000 pounds manila cardboard; 95,000 sheets railroad board; 330,000 pounds bristol board; 6,000,000 pounds United States postal card bristol board; 27,000 sheets pressboard; 3 000 pounds news board; 910,000 pounds chip and strawboard; 20,000 pounds marble grained board; 36,000 pounds box board; 330,000 pounds binder's board.

In cases where more than 1,000 reams are called for, proposals will be received for 1,000 reams or more.

Report of Specifications Committee

The committee on Paper Specifications of the Joint Committee on Printing of which F. P. Veitch is chairman has made the following report to the Joint Committee:

The Committee on Paper Specifications respectfully submits its thirtieth report and the accompanying recommended schedule for paper for the public printing and binding and blank paper for the use of the Government departments and establishments in the District of Columbia for the term of six months, beginning January 1, 1936.

When the specifications for the previous six-month period, or the first half of the fiscal year 1936, were prepared by the Paper Specifications Committee it was with a view of having the same prevail throughout the fiscal year; hence the only changes made in this report are the insertion of the proper estimated quantities and modifying several lots, where the number of sizes had become excessive, to read "cut any size," with minimum and maximum widths.

This schedule embraces 183 lots, being the same number called for in the preceding schedule. The quantity estimated for the term of six months beginning January 1, 1936, is approximately 37,756,000 pounds, as compared with 30,050 000 pounds for the previous contract period of six months.

W. B. Clements and E. H. Larkin Resign

KALAMAZOO, MICH., October 21, 1935—William B. Clements, general superintendent of the Bryant Paper Company, and E. H. Larkin, vice-president and director of sales of the same company, tendered their resignations to the board of directors today to take effect immediately.

Both Mr. Clements and Mr. Larkin are leaving Kalamazoo to locate in Wausau, Wis., where they will be identified with the Wausau Paper Mills Company located at Brokaw, five miles from Wausau. Mr. Clements will be the vice-president and general manager of the mill and Mr. Larkin, vice-president and director of sales.

Both gentlemen have been with the Bryant Paper Company for the past six years and the records under their stewardship are indeed commendable. The Bryant Paper Company is at present operating approximately full capacity due to no small extent to the ability and efficiency of Mr. Clements and Mr. Larkin.

Bondholders Approve Offer for Great Lakes

Vote Nearly Four to One In Favor of Sales Company's Assets to Syndicate of U. S. Publishers, Headed by "Chicago Daily News"—Determined Opposition Advanced by Group of Canadian Newsprint Paper Manufacturers

[FROM OUR REGULAR CORRESPONDENT]

TORONTO, Ont., October 21, 1935—Bondholders of the Great Lakes Paper Company voted, at a meeting in the King Edward Hotel on October 15, nearly four to one in favor of the sale of the company's assets, for the past four years in the National Trust Company as receiver, to a syndicate of United States publishers headed by the *Chicago Daily News*. The publishers' offer, otherwise known as the Gefaell-Aldrich offer, was approved by a vote of $4,627,200 in bonds against $1,374,000, making a total of $6,001,200. Total of bonds represented at the meeting was $6,052,900. Notwithstanding determined opposition advanced by the supporters of an offer from R. S. Robertson, K. C., representing a group of ten members of the Canadian newsprint industry, the motion of the Right Hon. Arthur Meighen, chairman of the bondholders' committee, recommending the Gefaell-Aldrich offer, was the only motion on the agenda when the vote was taken.

Immediately on completion of the poll Mr. Meighen moved final adjournment of the meeting which was carried without opposition. Normally this would mean that the next step would be an application to the courts to direct the sale of the property as approved by the majority of the bondholders represented at the meeting. Whether steps will be taken by representatives of the newsprint industry to place further impediments in the way of consummation of the deal could not be learned.

Under terms of the offer as recommended by the bondholders' committee and approved by the bondholders' meeting, the Great Lakes Paper Company will be taken over as a going concern, and will be provided with contracts at the current price for newsprint, for a total of at least 67,500 tons per annum, with the exception that other contracts now in sight will bring total production to the capacity of the mill around 90,000 tons per annum. With contracts now in hand, together with existing tonnages, amounting in all to between 70,000 and 75,000 tons, the chairman of the bondholders' committee expressed his confidence that the balance of the tonnage could be obtained. If the present views of the committee are followed, the deal, as it will finally go before the courts for ratification, will make no provision for prior lien bonds, as provided for in the original offer. In a letter to the meeting, the bidders expressed their willingness to withdraw this provision, along with other specified minor alterations, if so desired by the bondholders. In the opinion of the committee, having in mind the contracts involved and the present position of the company, it may not be necessary to provide the working capital contemplated by this issue of prior lien securities. As contemplated, the meeting developed a conflict of interests in which the oratorical flashes of opposing counsel left exposed interesting portions of the background of conditions in the Canadian newsprint industry.

Little time was lost in disposing of the other offers. The original offer of R. O. Sweezey & Company, it was pointed out, lacked provision for newsprint tonnage. The Canadian International Paper Company offer was also unacceptable and in any event this company was understood to be one of the group represented in the Robertson offer presented to bondholders for the first after the initial agreement. Objection to the Dominion Bank offer was taken on the grounds that it was based on a contemplated lease and agreements with the lessee which the committee had examined.

"The offer of the industry" as Mr. Meighen described the Robertson proposals, came nominally from Black Sturgeon Newsprint, Ltd., composed of manufacturers who do not desire conditions to arise which they fear may arise if the remaining offer is accepted. Objection to this offer, Mr. Meighen pointed out, lay in the loss of freedom by the company to compete for business; secondly in a provision which takes control of the new company out of the hands of the bondholders.

Great Northern and Canadian Newsprint

Recent announcement that the Great Northern Paper Company, of Maine, had increased the price of its newsprint a dollar per ton for 1936 has occasioned considerable disappointment in Canadian circles which have been attempting to maintain a bullish attitude towards the early prospect of the Canadian newsprint industry. They hoped for much more than that. The Great Northern, one of the big companies in the United States, with capacity of 330,000 tons yearly, set the price back in 1934. In November it declared an advance of $2.50 a ton, which brought the price to its New York customers up to $42.50 per ton. That compares with current price of $40 per ton taken by the Canadian companies.

At the time of the November announcement, the Great Northern indicated that the $2.50 increase was for the first six months of 1935, and added that it would later declare its policy for the second half of the year. The policy was to stand still. In view of the $2.50 increase last year, locals were expecting that this Fall's advance for the first half of 1936 would be at least that amount. Some were calling for more. But now, since it is generally recognized that the Great Northern plays a heavy hand in establishing the price of newsprint in the States, attention is being drawn to the fact that, if Canadian producers do not get more than $1 increase for 1936, they will be worse off than this year.

The Great Northern, contrary to the position of most of the Canadian newsprint companies, is well placed in having no bonds or preferred stocks. It is a simple structure of 998,330 shares of $25 per common. There was a dividend of 25 cents a share in March, marked as a quarterly, thus suggesting regular of $1 a year. But reduction of $406,000 in earned surplus in 1934 indicates a call upon surplus to that extent to maintain dividend payments. On the basis the call was approximately 40 cents a share, thus suggesting that in 1934 its earnings were about 60 cents a share, or around $592,000.

Consolidated Paper Corporation, one of Canada's largest producers, with capacity more than double that of the Great Northern, apparently cannot get along when the latter sets the price pace. For its fiscal year ending with March, Consolidated Paper reported deficit of $72,662 after depreciation bank and other interest, but before fixed charges around $2,827. Leading Canadian newsprint manufacturers apparently will be in a poor position for 1936 if they cannot get a price increase of more than a dollar a ton.

Northern Paper Mills Make Executive Changes

A. B. Hansen, formerly of Marinette and Menominee Paper Co., Engaged as General Manager, Effective November 1—A. C. Remley, Recently Vice-President and General Manager of Patten Paper Co., Appointed Sales Manager of Northern

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., October 21, 1935—Another addition to the executive personnel of the Northern Paper Mills, Green Bay, Wis., was announced last week with the appointment of A. C. Remley as sales manager. He succeeds L. G. Wood, who has resigned.

Mr. Remley resigned recently as vice-president and general manager of the Patten Paper Company, Ltd., Appleton, Wis. He had been with the company since 1918, when he was engaged as purchasing agent. He was made vice-president and manager in 1924, and resigned September 23. Mr. Remley has already taken over his new duties.

A. B. Hansen, who has been engaged as general manager of the Northern Paper Mills, expects to take over his new duties November 1. He resigned as general manager of the Marinette and Menominee Paper Company, Marinette, Wis., to take his new position.

Patten Mill To Operate Full Time

After informal conferences with W. H. Zuehlke, receiver, and its principal creditors, the Patten Paper Company, Ltd., Appleton, Wis., has made announcement through Eric D. Lindberg, general manager, that full operations will be continued at the mill, which has been showing a reasonable profit for the last three years. It is believed that a temporary shutdown would demoralize the market for its well-known trade brands.

The company also will delay for the time being its sale of a large amount of common stock it owns in the Northern Paper Mills, Green Bay, Wis., in the hope the price will improve with the continued upturn in general business. It is the company's intention to pay all of its indebtedness, secured and unsecured, in full. Goggins, Brazeau & Graves, law firm of Wisconsin Rapids, Wis., is making the necessary studies of the situation, and will pass its conclusions on to the creditors in the near future.

The receivership was authorized by the court to protect a past due mortgage for $75,000 held by the Aid Association for Lutherans on the mill, water power and trade-marks.

News of the Industry

The entire estate of Harry Price, deceased secretary-treasurer of the Kimberly-Clark Corporation, Neenah, Wis., is valued at $257,197.30, according to an appraisal approved by the Winnebago county court at Oshkosh, Wis. Provision is made in the will for a trust fund of $100,000 for Mr. Price's grand-daughter, Harriet Price Gunn. The income is to be paid to the girl's mother until she reaches the age of 21, and the entire amount is to be turned over to her when she becomes 25 years old.

Work on a new laboratory building has been started by the Ansul Chemical Company, Marinette, Wis. It will be one story, with a floor space of 28 by 40 feet, and will be of brick and tile construction. The building will be ready for occupancy by the first of the year.

A tract of 1,000 acres in the Lac du Flambeau district of the Chequamegon National Forest, in Northern Wisconsin, is being planted to jack pine. CCC workers are doing the work under the supervision of the federal forestry service.

R. M. Radsch, sales manager of the Appleton Machine Company, Appleton, Wis., was one of the speakers at the combined meeting of the Ontario and New York Superintendents Association of the Pulp and Paper Industry at Syracuse, N. Y. His subject was "The Appleton Vortex Beater and Pulp Refining."

John Strange, assistant executive secretary of the Institute of Paper Chemistry, Appleton, Wis., will present three papers at the meeting of the Pacific Coast section of the Technical Association of the Pulp and Paper Industry at Seattle, Wash., October 25 and 26. One deals with the grading activities of which he had charge in setting up NRA codes. Another will describe the Institute, and a third, prepared by Dr. Harry F. Lewis, dean, will deal with the swelling of fibers.

C. B. Clark, president of the Riverside Paper Corporation, has been re-elected a director for two years of Riverview Country Club, Appleton, Wis. A. H. Thuerer of the Appleton Woolen Mills, has been named president for the ensuing year.

Announcement is made of the marriage of Elbert W. Stridde, of Niagara Falls, N. Y., formerly of Neenah, Wis., and Miss Hazel Wimer, of Cedar Falls, Iowa. The ceremony was performed at Iron Mountain, Mich., October 12, where the bride has been teaching. Mr. Stridde is mill manager for the Kimberly-Clark Corporation at Niagara Falls.

Making Effort To Secure Duty Reductions

A widespread effort to secure a blanket reduction of 20 per cent in all duties on all commodities imported from countries with which the United States has most favored nation commercial treaties has become known through four cases involving importations of paper, being taken to the United States Customs Courts. The importance of this campaign was first disclosed by the Import Committee of the American Paper Industry, because of the appearance of paper imports in the schedule of cases to be tried in the courts, but other industries have become interested since the Import Committee pointed out the danger.

Paper from four countries is involved in the earlier cases listed for trial shipments in question being from France, Germany, Japan and Great Britian. That the movement is more than a casual effort to secure a reduction of duty is shown by the fact that the attorneys representing the importers are making this an issue in so many cases that they have prepared protests for all commodities on a stereotyped form.

Whether foreign nations are involved in this movement or whether it is only a campaign of domestic importing interests is not known.

In brief this campaign is based on the claim that the reciprocal trade agreement with Cuba, giving that republic 20 per cent reduction in the duty rate on all its exports to the United States automatically applies to all imports from any country enjoying a most favored nation treaty.

If this claim for a reduction of duty is upheld by the courts, the reciprocal trade agreement with Cuba will become the means for a wholesale reduction of the entire American tariff schedule.

Chicago Paper Industry Displays Strength

Demand for Practically All Standard Grades of Paper Progresses—Fine Paper Division Steady, Including Book, Cover, Writing and Ledger Papers—Kraft Section Exhibits Firm Undertone, With Higher Prices Indicated—Paper Board Situation Healthier

[FROM OUR REGULAR CORRESPONDENT]

CHICAGO, Ill., October 21, 1935—Chicago representatives of the paper industry are fairly well satisfied with local developments. Despite unseasonal weather, which is affecting general business, demand in all lines has progressed and the markets have remained impressively stable. Among the leaders in this respect is the kraft market which continues strong with the possibility of advances in price strongly presenting itself to students of the market. Sulphite bonds, reacting as well as expected to recent adjustments, are expected to "come out all right."

Developments in the newsprint industry are combining to give a stronger tone to this market and the groundwood representatives here are finding sentiment helping to further the already marked improvement in the latter product. Bonds and ledgers made no spectacular move either way during the week but the undertone continued steady. Books and covers reported a similar experience with demand in the latter said to be a bit more broad. The board market showed a healthier report, while the waste paper market, struggling under the handicap of rearrangements and lack of demand, still felt that conditions were due to improve in the near future.

Container Stock Moving Briskly

Some interesting news is developing with respect to the Container Corporation of America, headquartering in Chicago. Container stock has been moving briskly on reports that early consideration will be given to cleaning up the dividend arrears on the preferred stock. Directors are slated to meet on November 12 at which time a sizable dividend is assured, according to authoritative sources. Estimates as to what dividend directors will declare vary from a minimum of seven dollars to payment in full of the arrears, which totals nearly $19.25.

Asked To Supply Periodical Records

A rather significant development comes from the action of the Chicago Graphic Arts Federation in asking paper buying establishments to supply periodical records of all customers who purchase direct from paper merchants. It is reported that these records will tell to what extent paper merchants are selling direct to the consumer. The paper industry will be interested in the findings.

News of the Industry

Berkshire Papers, Inc., and the Murnane Paper Company, are the local distributors of an interesting new series of demonstration folders issued by the Hawthorne Paper Company to show the possibilities of Mount Vernon text for direct mail advertising purposes.

The Chicago offices of the Eastern Manufacturing Company and local distributors are featuring a new portfolio of "all-set letterheads" printed on Atlantic Bond. The portfolio is proving of particular interest to the printing industry because of the "all-set" features.

The eyes of Chicago kraft paper executives are centering on the meetings of the Kraft Paper Association to be held at White Sulphur Springs, West Virginia, on October 22 and 23. Satisfactory stabilization of the present kraft market is expected to be furthered at these sessions, which will also feature a program of interest to the entire paper industry. S. M. Hudson is secretary of the association.

Nation Wide Papers, Inc., the recently formed organization of jobbers in non-competitive trade areas which provided interesting news a month or so ago, has now entered into the market with the issuance of Nation-Wide Bond, a watermarked product, 25 per cent rag content. It is reported that the product will be issued through the group of firms identified with the organization, which include the Carpenter Paper Company, Omaha; Bradner Smith & Co., Chicago; Carter-Rice & Co., Boston; John Leslie Paper Company, Minneapolis; W. E. Wroe & Co., Chicago and the Chope-Stevens Paper Company, of Detroit.

Considerable interest is being created in local paper circles over the activities of the Paper Merchants Bowling League, a twelve team league which began operations a short time ago. Nine paper houses are represented on the twelve teams, including Dwight Brothers Paper Company; J. W. Butler Paper Company; Parker, Thomas & Tucker; Moser Paper Company; Bermingham & Prosser; Whitaker Paper Company; the Swigart Paper Company; Bradner Smith & Co. and the Chicago Paper Company. Officers of the league are W. H. Ehrlicher, Bermingham & Prosser, president; D. D. Vaughan, J. W. Butler Paper Company, vice-president; G. C. Olson, Chicago Paper Company, secretary and A. C. Anders, Bradner Smith & Co., treasurer. The teams roll on alleys on the south side and easily accessible to all of the entrants.

From the offices of the Oxford Paper Company at 35 East Wacker Drive comes a descriptive and informative bulletin on Oxford Polar. The booklet, carrying the names of the Chicago distributors, Bermingham & Prosser and Bradner Smith & Co., is printed on Oxford Polar Superfine and is entitled "So they can't say—What of it?" The technique of persuasion in advertising is competently discussed and many fine half-tones are utilized to furnish a combination of interesting copy and proof of the ability of Oxford to hold half-tones and printing.

The Whitaker Paper Company has added Mellochrome Dull Coated Post Card to its already complete line. The product is made by the Appleton Coated Paper Company and comes in white and seven colors.

The Marvin Envelope and Paper Company has recently published a 125 page catalog carrying many new lines and many new features. New lines include Bogus Bristol, newsprint, Monoplane watermarked sulphite, Pennsylvania unwatermarked sulphite bond and other additions. C. T. Strauss has recently accepted a position on the sales staff of the concern and has been assigned to the Chicago loop territory.

A good deal of interest is centered not only in the activities of the newly organized Middle States Paper Club but also in the purpose behind the organization. Actually created at the National Paper Trade Association meeting, the Club will be of a social nature and dues will be nominal. The plan is to bring together—in a social way—both manufacturers and jobbers.

Paper Demand Well Sustained in Philadelphia

Volume of Business Transacted In Various Standard Grades of Paper During Last Week Continued to Hold Recently Reported Gains—Paper Stock Industry Continues to Mark Time Awaiting More Active Consumer Interest

[FROM OUR REGULAR CORRESPONDENT]

PHILADELPHIA, Pa., October 21, 1935—Business activity in the paper trade here continues to hold its recent gains. However, in the waste paper industry they are just marking time, and it would seem that all that is needed to send the market higher is for consuming demand to expand a little further.

Century Old Paper Mills Honored

Charles McDowell and J. M. Chestnut, representing McDowell Paper Mills, Manayunk; S. S. Shryock, Jr., O. A. Shryock, C. C. Dorsey and L. E. Ranck, representing Shryock Brothers, and George Corse, representing Dill & Collins, were in attendance at the eleventh annual luncheon tendered to the members of the Centenary Association of the Philadelphia Chamber of Commerce—now numbering 120 firms—which was held in the Ballroom of the Benjamin Franklin Hotel on Thursday, October 17. These three are the only manufacturers in the paper industry in Philadelphia eligible to membership in this Centenary Association of the Chamber of Commerce by virtue of having been in continual existence for one hundred years or more. Twelve hundred business men gathered to do them honor.

To more than 100 business establishments continuing to successfully function through the generations represented by that long life remaining unbowed by business depressions, by wars and by changes in commercial and industrial methods, the Chamber of Commerce pays tribute each year, and rightfully so, for the reason that no other city in the country—even among old established communities of the Atlantic Coast—can boast such a record.

Association Activities

The Board of Governors of the Paper Trade Association of Philadelphia recently met and discussed a program of activities for the coming season. Klein Bros. Paper and Twine Company, 107 Hamilton street, Allentown, Pa., was taken into membership of the association in the Wrapping Paper Division.

The Wrapping Paper Division held a meeting during the week in the headquarters of the association at 355 Drexel Building. George Ward, chairman, presided. Nathaniel Saxe, delegate for this Division, attending the National association convention, submitted his report. C. A. Spaulding, assistant secretary of the National association, who happened to be in Philadelphia, dropped in at the meeting, which was very well attended. It was decided to hold bi-monthly meetings on the second and fourth Thursday of each month hereafter.

The Paper and Bag Manufacturers' Institute will hold a meeting at 8 o'clock on Thursday, October 24 in the Broadwood Hotel. Charles Resnick, chairman, will preside.

The Philadelphia Paper and Cordage Association held its regular monthly meeting in the Rose Room of Adelphia Hotel on Friday, October 18. There was a round table discussion of plans for the association's annual Christmas party, and it was decided to hold it on Friday, December 20 in the Adelphia Hotel, at which time, as is the association's custom, fifty children recruited from the ranks of the Salvation Army will be treated to a turkey dinner, and toys and articles of clothing distributed. E. K. Lay, chairman of the Entertainment Committee has appointed George K. Hooper, Hooper Paper and Twine Company, John Shinners, Acme Specialty Company, Amos Coath, Frank W. Winne & Son and Raymond Armstrong, of F. W. Hoffman, to serve on a special committee for this Christmas party. James Anderson of the Schuylkill Paper Company was appointed chairman of the Nominating Committee for officers of the association for the coming year, and associated with him on this Committee are E. L. Richards, Buffalo Envelope Company; Samuel Shyrock, Shryock Bros.; John Heverly, Garrett-Buchanan Company, Vincent Dirvin, Paper Manufacturers Company. They will present their nominations at the November meeting, and election of officers will take place at the business meeting which will be held immediately preceding the Christmas party on December 20.

Michigan Superintendents Meet Nov. 21

[FROM OUR REGULAR CORRESPONDENT]

KALAMAZOO, MICH., October 21, 1935—The new executive board of the Michigan Division of the Superintendents' Association, of which Otto F. Fischer of the Bryant Paper Company is the general chairman, held their first meeting on October 16.

The date of the November meeting has been set ahead one week on account of Thanksgiving falling on the last Thursday of the month, the regular meeting night.

Thursday evening, November 21, 6:30 P.M., Park-American Hotel is the date and place. Announcement of the program will be made later. Mr. Fischer and the board discussed plans for the handling and entertainment of the National Convention in event of Kalamazoo being selected as the meeting place for 1936.

The Michigan Division will make an intensive drive for new memberships, and is looking ahead to a busy and interesting season, several new features are being planned for the monthly meetings. A joint meeting with The Technical Association of the Pulp and Paper Industry is scheduled for January and Dr. Otto Kress, Technical Director of The Institute of Paper Chemistry, Appleton, Wisconsin, and Jacob Kindleberger, president of Kalamazoo Vegetable Parchment Company, are principal speakers.

To Counteract Telegraph Slogan

[FROM OUR REGULAR CORRESPONDENT]

WESTFIELD, Mass., October 22, 1935—The Eaton Paper Company of Westfield has prepared a slogan to counteract the slogan of the Western Union Telegraph Company. The telegraph company's slogan has been "Don't write—telegraph." The answering slogan by the paper company is "Why Waste Money to Telegraph?"

Displays are being made throughout the nation with this slogan featured. George P. Clayson merchandising manager of the Eaton company says that the stationery dealers have merely frowned at the Western Union slogan but that now they are going into a campaign to support their slogan.

Demand for Paper Continues Active in Boston

Fine Paper Business Unquestionably Better In Some Quarters—Wrapping Paper Orders Coming Along In Satisfactory Volume—Paper Bag Division More Stable Than of Late—Box Board Situation Gradually Improving

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., October 21, 1935—The paper market in the Boston area was generally active with a satisfactory amount of sales in at least most cases during the last week. Fine paper business was unquestionably better in some quarters. At the office of a large manufacturer it was stated that the first two weeks of October were "pretty good" and that the third week was about the same. In addition to actual sales there was considerable inquiry.

Wrapping paper dealers, as a whole, made favorable comments on the market. At one house, it was said that orders were "coming along pretty fair" and that business was 15 per cent ahead of a year ago at this time. At the office of another firm, "business seems to be tearing right along this month." Kraft mills are said to have received their orders up to the end of the year, a condition which has not existed for a number of years, according to the trade.

With manufacturers working on a stabilization program, the paper bag markets on standard bags are more stable than they were. Jobbers, it is reported, have been endeavoring to buy at low prices, but have not succeeded in doing so. The demand for coffee bags, however, was less, due to the fact that two big chain store groups have lowered the price of coffee. These companies, it is understood, make their own bags. Independent stores have not been selling so much coffee, on account of the competition, and hence their demand for bags has fallen off.

Holiday papers have been moving fairly well. Orders for these usually lag until the last minute. Mills are unable then to fill orders when wanted, because such a volume of business is received at the same time.

The box board situation is regarded as better than for several years, both in stability and price. With paper box manufacturers operating actively, prices of boards are apparently hardening. The volume of sales shows improvement, although in some quarters it is said that it is not a sustained improvement.

Paper Stock Conditions Good

The condition of the paper stock market is generally good, continuing active, although, under old papers, old newspapers have been marked down to .25 @ .27½ from .27½ @ .30. They continued to sell at these figures. Mixed papers, which remained at .22½ @ .25, also moved to some extent. The other grades of old papers held their own rather well. Bagging was active in all grades. Gunny No. 1, foreign, is being offered on the dock at 1.90. New domestic rags were very firm at the same levels.

In old domestic rags, all grades of roofing stock held their own, with other grades unchanged. In foreign rags, a fairly good amount was sold at the same prices which prevailed during the previous week, dark cottons moving at 1.55 @ 1.60, but recent quotations have been as high as 1.75. A considerable quantity of dark cottons has been imported. The situation abroad, however, indicates that prices will remain high while the war cloud continues. Exports of rags from Italy have been curtailed. If there should be a general war on the other side, prices of paper-making material will take a rapid advance, it is predicted. The effects of preparations for war have already been felt in the market, because Italy is keeping supplies at home. Twine prices are higher.

W. L. Carter Discusses Management

Winthrop L. Carter, head of the Nashua Gummed and Coated Paper Company, and president of the New England Council, gave an address before the American Institute of Accountants at the 19th annual meeting of the organization, October 15, during the four-day 19th annual convention of the organization, held at the Copley-Plaza Hotel.

Mr. Carter said that too many enterprises formerly successful in New England were family affairs and more attention was given to perpetuating the family fortune than to the vitality of the business.

"Boston is unique as a trustee city," he said. "One has only to read the directory of directors to see how much more attention, is or, rather, was given to the division and distribution of the profits of these companies than to the production of those profits. For one man on the board trained and qualified to operate the company, there were three or four with financial or fiduciary qualifications. The depression has wreaked fearful havoc with this method of management."

Referring to the future of New England industry, Mr. Carter observed:

If we wish to continue in business, a change in our management policies is necessary. We must change them fundamentally in two respects—labor relations and planning.

Labor relations must be considered as a major function of our business. For years we have accepted as essential such functions as production management, sales management, credit departments, maintenance and repairs, finance, etc., but except in a comparatively few large companies the important human problem of labor relations has been entirely neglected.

Doubtless this is because it is more abstract than any of those functions named above. But, the increasing number of social laws, both state and national, emphasize the importance of the labor aspect of management over the next ten years. The social security act, for instance, makes provision for unemployment and pensions.

It places an enormous cost, payable in cash on industry. This cost puts a hitherto unknown premium on labor efficiency and production. Its effect will be to cut existing employment to the absolute minimum in every well managed industry. When the law requires you to pay a tax based on your total payroll, you will naturally try to keep that payroll at the lowest possible figure.

It becomes of prime importance that your labor be selected with particular fitness for each respective job; that working conditions be of the best, encouraging a man to his ablest performance; that every cause of discontent, often developing because of indifference or ignorance on the part of the management, be removed. Your workmen must be contented mentally as well as physically. It's a highly technical problem, involving health, psychology, justice, and leadership. It can no longer be left to look out for itself.

Never was the need of charting our future course more

essential than now. No man can predict with any certainty what the economic effect of many of these new laws will be on industry. There is one fact which is incontrovertible. It has cost a huge sum of money, and that sum must eventually be repaid by taxation. This load must be carried in large part by industry. So, in our plans for the future we are confronted with the fact that for years to come our tax burden will be our greatest handicap to profits.

Knight, Allen & Clark Reorganizes

Knight, Allen & Clark, Inc., have accomplished part of their reorganization, which has been occasioned by the retirement of George D. Allen from the firm. The following officers have been elected: President and treasurer, Nathan S. Clark; vice-president, Jack Mather; secretary and clerk, M. Lincoln Stimpson. Organization is not yet completed and more additions are to be made at a later date. The company reports an increased business. This firm, whose members have always been highly thought of in the trade, began as a partnership in September, 1919, and was incorporated January 1, 1920. They originally started business at 177-179 Fort Hill Square, and have been about three years in their present quarters at 295 Congress street, where they have a well laid out warehouse.

News of the Industry

The Brooks Manufacturing Company is merchandising its Brookmoor Bond Typewriter Paper, a sulphite bond, in a new setup box attractively finished in gilt and black.

Ernest S. Reid, mill representative, left today for the Hamersley Manufacturing Company, Garfield, N. J., expecting to be there for a few days. Mr. Reid represents this company in New England, handling its waxed paper and grease-proof paper.

William P. Libby, traffic manager of the Plymouth Cordage Company, is to be the principal speaker at the dinner in observance of the 25th anniversary of the Traffic Club of New England, this evening at the Copley-Plaza Hotel. Mr. Libby, who was president of the club in 1916, will talk about its early history.

Arthur V. Howland, vice-president, secretary, assistant treasurer and purchasing agent of the Tileston & Hollingsworth Company, was a speaker at a meeting marking the 30th anniversary of the founding of the New England Purchasing Agents' Association, held at the Hotel Vendome last Monday evening. The Association is the oldest organization of its kind in the country.

Forest Service Laboratory Set Up To Improve Machines and Methods

To bring together its technical resources for the improvement of forest work machinery and operating technique, the U. S. Forest Service is establishing a special research laboratory with headquarters at Spokane, Wash. It is to be called the U. S. Forest Service Equipment Laboratory. Next January, an advisory committee will meet at Spokane, Wash., to draw up for the laboratory a program of the most urgent research work in its field.

Experiments dealing with machinery and methods for fire fighting, tree planting, trail building and other Forest Service activities have been under way in the National Forest Regions throughout the country. As the Forest Service puts it, its aim is "to institutionalize this activity and to provide the men engaged in such work with a central shop and laboratory, fully equipped with modern tools and instruments, where the collective services of technicians in various fields will be available".

Indianapolis More Optimistic

[FROM OUR REGULAR CORRESPONDENT]

INDIANAPOLIS, Ind., October 21, 1935—There appears to be more optimism in the local paper industry than there has been during any time since the real depression began. In the first place, the season is average and the larger advertisers are not delayed in placing their business. Buying of fine papers is increasing and reports from various print shops indicate that their business is picking up. Overtime in many of the shops now is the rule and the period of one and two-day a week operation seems to be over. Fine paper users are not buying in quantities, however, but their orders are much more numerous and their requirements are spread over a wider field than for many months.

The newsprint market also shows every indication of improvement. Lineage in central Indiana is much better than it was this time a year ago and during the last two weeks the papers in the larger cities are reporting increases after a rather dull time during the late summer. Prices are holding steady and while no particular contracts are being made the volume of spot business is good.

In the common paper field there is a continued demand for bags and wrapping papers. The volume of bag business is reported to be improving steadily. Waxed and transparent papers are moving nicely. Manufacturers of waxed papers in this territory report a considerable increase in tonnage over the same period a year ago, but because of price conditions in some quarters there is not the percentage of profit there was when NRA was in effect. Manufacturers in this section are complaining about some price cutting from other sections that is reducing profits.

Box factories are having fair business. The number of users is increasing slightly, but there have been some declines in certain quarters.

Paper stock men here report some increase in mill demand. Offering prices continue low on the average with most of the demand for better grades of both paper and rags.

Carborundum Co. Presents Band Series for Its Tenth Year on Air

The Carborundum Company, of Niagara Falls, will inaugurate its tenth successive year on the air when its fall and winter program series opens on October 19. The broadcasts, with the same form and personnel employed in each of the nine previous years, will be heard over 18 stations of the Columbia network from 7:30 to 8:00 P.M., E.S.T., every Saturday, originating as usual at Niagara Falls. They will continue through February.

As in the past, the programs will feature favorite band selections, played by the Carborundum Band, under the direction of Edward d'Anna. Francis D. Bowman, advertising manager of the company, will again act as narrator, telling Indian legends gleaned from the lore of the Iriquois, and giving a short industrial talk each week to show how abrasives are employed in the manufacture of products commonly used by everyone.

The Carborundum band has been augmented and the broadcasting facilities have been so improved that company officials anticipate an even broader appeal than before. Responses to the program have increased each year, until last season the total came to more than a half million. Because of this evidence of a large audience, no further changes are contemplated. Retaining the same form and personnel since its first broadcast, in 1926, over a single Buffalo station, the program has created a record unique in radio. The 1935-36 series will be heard over the following eighteen CBS outlets.

Superintendents Convene in Philadelphia

[FROM OUR REGULAR CORRESPONDENT]

PHILADELPHIA, Pa., October 21, 1935—The eleventh annual Fall Convention of the Pennsylvania-New Jersey Division of the American Pulp and Paper Mill Superintendents' Association was held at the Pennsylvania Hotel, 39th and Chestnut streets, on October 18 and 19.

This 1935 Fall meeting is outstanding in the annals of the association not only from the standpoint of attendance but the high intellectual caliber of papers presented and the good comraderie which was exhibited on all sides.

There was a general get-together on Friday afternoon, October 18, after which those who wished to play golf hied themselves to the various nearby courses, while others went on a tour of mills.

Interesting Papers Presented

Promptly at 9:30 on Saturday morning the first paper was presented by E. Cowles of Cowles Engineering Company, on "Cowles System for Detrashing and Defibering Waste Paper Stock."

At 10:30 Allen Hyer of the Black & Clawson Machine Company discussed "The Modern Board Machine."

Following presentation of the above papers, election of officers took place. At 12 o'clock lunch was served.

The meeting reconvened at 1:30 in the afternoon with the reading of a paper by L. M. Booth, of the Booth Chemical Company, which dealt with "Observations at the Wet End."

At 2:30, P. W. Tigwell, of Beloit Iron Works, talked on "Cylinder and Fourdrinier Machine Improvements," and presented a series of motion pictures of modern paper-making machines, reviewing recent improvements in paper-making equipment.

The banquet at 7 P.M. was largely informal, with Joseph L. Hodgins as toastmaster, and the guest of honor was Charles Kephart of York Haven Paper Company.

Carl E. Whitney Speaks

An excellent entertainment and musical program was provided, after which Carl E. Whitney, counsel for the American Pulp and Paper Association, outlined the activities and aspirations of the Committee on Public Affairs of the American Pulp and Paper Association, telling the superintendents how they could best co-operate in this work by keeping their associates informed on national legislation, stressing the direct and indirect bearing of this type of legislation on the welfare of the pulp and paper industry as a whole. A dancing party followed.

The Attendance

Those in attendance at the banquet were: L. M. Booth, Booth Chemical Company, Elizabeth, N. J.; E. Cowles, The Cowles Company, Princeton, N. J.; C. R. Crawford, Shartle Bros., Middletown, Ohio; J. Travers, Container Corporation of America, Philadelphia; Ray Stearns, Container Corporation of America, Philadelphia; Lawton Dix, Paper and Industrial Appliances, Inc., New York; C. Weil, Paper and Industrial Appliances, Inc., New York; Allan Hyer, Black Clawson Machine Company, Hamilton, Ohio; E. C. Gildenzopf, Schmidt and Ault Paper Company, York, Pa.; Joseph L. Hodgins, *The Paper Mill*, New York; John Brougham, Penn Fibre Board Corporation, York, Pa.; G. P. Prather, Dilts Machine Company, Fulton, New York; Charles Kephart, York Haven Paper Company, York Haven, Pa.; Harold Bing, Beloit Iron Works, Wisconsin; V. Denison, Beloit Iron Works, Wisconsin; F. Drake, Lockport Felt Company, Newfane, New York; J. Stepberger, Ravenswood Paper Company, Long Island City; E. E. Earhart, Continental Paper Company, Bogota, N. J.; John Allen, Chromium Corporation of America, New York; William A. White, Clifton Board Mills, Clifton, N. J.; A. Wickham, MacAndrews & Forbes, Camden, N. J.; R. E. Briggs, Draper Felt Company, Canton, Mass.; Jacob Edge, Downingtown Manufacturing Company, Downingtown, Pa.; Craig Maxwell, McDowell Paper Company, Manayunk, Philadelphia; Grant Fiske, Thames Board Mills, Purfleet, England; William Putney, Philadelphia Felt Company, Frankford, Pa.; Carl Rickards, Philadelphia Felt Company, Frankford, Pa.; Eric Adamson, American Woolen Company, New York; Robert B. Douglas, Ohio Knife Company, Cincinnati, Ohio; Harold H. Burrows, Manhattan Rubber Company, Passaic, N. J.; Graunell Knox, Manhattan Rubber Company, Passaic, N. J.; George Detweiler, Heller and Merz, Philadelphia; R. C. Stewart, Shartle Bros., Middletown, Ohio; E. N. Glauner, Downingtown Manufacturing Company, Downingtown, Pa.; George R. Heidrich, Wallace and Tiernan, Philadelphia; H. J. Nash, Magnus Chemical Company, Garwood, N. J.; Thomas Gully, Magnus Chemical Company, Garwood, N. J.; N. D. Cunningham, Keasbey Mattison, Ambler, Pa.; S. M. Hesser, Hinde and Dauch, Gloucester, N. J.; Frank Winslow, General Electric Company, Philadelphia; George Hardaker, The Sinclair Company, Holyoke, Mass.; Otto Goeppinger, Woodside, L. I.; C. Sholdebrand, Paper and Industrial Appliances, Inc., New York; Ray E. Harter, R. T. Vanderbilt Company, Pennsylvania; B. M. Thomas, Container Corporation of America, Philadelphia; R. H. Stagmeyer, Penn Paper Board Company, New York; R. M. Bassett, Riley Stoker Corporation, Philadelphia; Howard H. Street, National Vulcanizing Fibre Company, Yorklyn, Del.; Ward Smith, Delaware Paper Mills, Inc., Wilmington, Del.; Howard H. Street, National Vulcanizing Fibre Company, Yorklyn, Del.; J. C. Dieffenderfer, Paper Makers Chemical Company, Easton, Pa.; F. I. Jacoby, Riegel Paper Company, Milford, N. J.; J. Carl Schmidt, Dupont Company, Philadelphia; William C. Law, S. A. Bicking Paper Company, Downingtown, Pa.; C. N. Meade, S. A. Bicking Paper Company, Downingtown, Pa.; Walter Schneider, Downingtown Manufacturing Company, Downingtown, Pa.; Richard D. Kehoe, Paper and Industrial Appliances, Inc., New York.

The ladies who graced the occasion with their presence were Mrs. C. R. Crawford, Mrs. Ray Stearns, Mrs. Allen Hyer, Mrs. Emma Schade, Mrs. Alan Boyd, Mrs. Joseph H. Dow, Mrs. John Brougham, Mrs. E. E. Earhart, Mrs. John Allen, Mrs. William A. White, Mrs. H. H. Burrows, Mrs. S. M. Hesser, Mrs. J. Raines, Mrs. R. H. Stagemeyer, Mrs William C. Law, Mrs. C. M. Law, Mrs. W. Schneider, Mrs. J. Stetterger and Mrs. Katherine H. Norman, PAPER TRADE JOURNAL.

Officers Elected

Divisional Officers elected for the ensuing year are John H. Brougham, Penn Fibre Board Company, York, Pa., chairman; Harry C. Busser, York Haven Paper Company, York Haven, Pa., 1st vice-chairman; Oscar Stamets, Riegel Paper Corporation, Milford, N. J., 2nd vice-chairman; Earl Earhart, Continental Paper Company, Bogota, N. J., 3d vice-chairman, and Mrs. Joseph H. Dow, Nutley, N. J., secretary and treasurer.

Col. Brashear of Ft. Orange Paper Co. Has Faith In Business If Meddling Is Stopped

Col. Peter Brashear, Kentucky gentleman, scholar and vigorous opponent of prohibition, is also head of the Fort Orange Paper Company, Castleton, N. Y. He is also, in a sense, Castleton, for his plant gives employment to one of every three persons living in Castleton, says John.

Castleton, a mill village without company houses. Castleton, where 85 per cent of the homes are owned by those who live in them. Castleton, which hardly knew there was a depression. Castleton, which Col. Peter Brashear says is one of the finest communities in the entire state, and where he lives.

When Col. Brashear is not in his quaintly furnished office in the big paper company plant, his big director's table surrounded by cases of empty paperboard boxes, containers which everybody who has bought anything in packages quickly recognize, Castleton calls him "Uncle Peter."

"Go and see Uncle Peter. He can tell you all about business in Castleton," businessmen told me.

And "Uncle Peter" did, for nearly an hour, tell me about the Fort Orange Paper Company which employs practically everybody in Castleton not in business.

Proud of Plant

Colonel Brashear is very proud of his paper plant, which has its own locomotives and its own railroad, a plant almost self-sufficient in itself in every detail. When Colonel Brashear took over the Fort Orange Paper Company, which he informed me was established in 1858, it had about 200 employes. Today on its payroll are approximately 500 persons, who take part in the production of between 3,000,000 and 4,000,000 paperboard packages every day. So the plant, always busy, makes more than a billion paperboard containers every year.

We assumed that was about all the paperboard packages all business could use any year, but Colonel Brashear said that at the peak business used 50 billion containers in one year.

"The industry is still in its infancy," the colonel declared. "We've hardly scratched the surface. A billion cartons a year—that's not much when you say it quickly."

Colonel Brashear, born in Kentucky, and thoroughly familiar with liquor distilleries though he doesn't drink himself, thinks prohibition was the worst curse that has ever visited this nation. And he doesn't care who knows it either.

"When I think of those cattle, thousands of them feeding at the distillery pens, it makes me shudder. Why you could take an old bull and put him on the grains for a few months and he'd be as tender as veal."

Steady Improvement

But I had come in to talk about business. Colonel Brashear informed me he was an auditor in New York when he decided he'd rather work for himself than for somebody else. So he bought into the paper company and is its president.

"Business?" he asked, throwing my question back at me. "We've noticed the upturn since the last quarter of 1932 and we've been in the black ever since. We've noticed a steady improvement.

"This country will go along alright—if," and Colonel Brashear emphasized his last word, "if the government will let us alone. We haven't lost any of our virility in this country. My only plea is 'For God's sake let us alone'."

If you pass the Fort Orange Paper Company property in the Albany-Castleton cut off, you can hardly help but notice the two pillars, symbolizing a gateway of progress, 1858 to 1933, which is the entrance to the paper mill property.

"The gateway typifies three quarters of a century of improvement and growth; the solid concrete foundations go deep into the earth; upon these the building began," once wrote Colonel Brashear. "The material is flint-like limestone, hammer dressed taken from one of the original mill walls. The construction is known as 'broken ashlar,' or stones of squared dimensions varying in size.

"The Human Struggle"

"When we see the pillars rising from the earth in four-square form, built of these irregular stones solidly cemented together, we think of the human struggle over the years, building upward, through varying conditions, a completed organization, strong, pleasing and, as a whole, of symmetrical design.

"The tablets on the pillars, cast of bronze from accumulated machinery scrap, are designed from the ancient Fort Orange trade mark.

He's 'Uncle Peter'

"Upon the top of each pillar there is placed a capsheaf, square and level; upon that is mounted a perfect sphere.

"From there read on and on; through years beyond, of growth with greater form—and cursed be he who wrecks these spheres of solid, living stone."

That is the history of the Fort Orange Paper Company, written in Colonel Brashear's own hand. He's proud of the company, he's proud of those who work for him, and he's proud of Castleton.

To Show Brown Instruments and Regulators

At the forthcoming Exposition of Chemical Industries, The Brown Instrument Company and the Minneapolis-Honeywell Regulator Company will have a combined exhibit in booths 40 and 41.

Instruments particularly applicable to the chemical industries for indicating, recording and automatically controlling temperatures, pressure, flows, humidity, per cent Co_2 and liquid levels will be on display. These instruments are offered in a wide variety of sizes and ranges; for example: the temperature instruments are available in both circular and strip chart types to include temperature ranges from—300° F. to 3400° F. and flow meters to measure a wide variety of fluid chemicals as well as steam, gas, air, oil and water will be shown.

Of interest to chemical process engineers will be the display of the new line of Brown air-operated controllers. Featured among these will be the new Air-o-Line controller which possesses continuously adjustable throttling range and automatic reset characteristics whereby the controller may be "tuned" to the process without resorting to manual control.

A wide variety of Minneapolis-Honeywell motor operated valves, control devices and combustion safeguard systems will add to the completeness of this display.

Obituary

Frederick D. Phelon

[FROM OUR REGULAR CORRESPONDENT]

SPRINGFIELD, Mass., October 22, 1935—Frederick D. Phelon, 82 years old, retired paper manufacturer and former director of the American Writing Paper Company, died Wednesday night at his home, 56 Harvard street, following a shock received a few days before.

He was born in Granville and began his business career when he entered the employ of the Greenlead & Taylor Paper Manufacturing Company in this city. In 1874 he married Miss Catherine Hanscomb Eastman, of this city, and the couple made their home in Holyoke, Mr. Phelon being at that time employed at the Massasoit Paper Company.

Two years later they moved to Huntington, where Mr. Phelon became manager and later treasurer of the Chester Paper Company, a position which he held until that property was bought by the American Writing Paper Company in 1899.

After the formation of the American Writing Paper Company Mr. Phelon was given the position of manager of the Linden Division of the company, a position that he held until his retirement, being also a director of the company for that time.

He was a member of Hampden Lodge of Masons, Morning Star Royal Arch Chapter, the Springfield Council and Springfield Commandery Knights Templar. He leaves a son, Raymond J., of Newton Highlands, six grandchildren and three great-grandchildren.

Charles L. Carter

[FROM OUR REGULAR CORRESPONDENT]

PHILADELPHIA, Pa., October 21, 1935—After an illness of six weeks, Charles Lybrand Carter, who for 25 years had been associated with MacAndrews & Forbes, Camden, N. J., died from heart trouble on Friday, October 18, at his home, Willow Dell Farm, in Gwynedd Valley, Pa. He was 61 years of age.

Mr. Carter was the last of a family in a long line of paper manufacturers. Previous to his connection with MacAndrews & Forbes, Mr. Carter operated a binders board mill at Cherry Hill, Maryland. His grandfather made paper in the days when teams hauled from Elkton, Maryland, to Pittsburgh, Pa.

His father, I. D. Carter, made paper for the *Philadelphia Public Ledger* when that paper was published by George W. Childs. Henry L. Carter, a brother of the deceased, founded the York Haven Paper Company, York Haven, Pa. Another brother, Robert D., who died in 1931, founded the Wanaque River Paper Company, at Wanaque, N. J.

Mr. Carter is survived by his widow, Linda L. Carter. Funeral services were held this morning and interment was made at Cherry Hill, Cecil County, Maryland.

Alfred L. Gooch

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., October 21, 1935—Alfred L. Gooch, 55 years old, vice-president of Stimpson & Co., Inc., paper and cordage dealers, with which firm he had been with 37 years, died Saturday afternoon after a long illness at the New England Sanitarium and Hospital near Melrose, Mass.

Mr. Gooch was born in Wakefield, Mass., May 11, 1880. He attended the Wakefield High School and then entered the employ of Stimpson & Co., where he had been ever since.

Mr. Gooch, who became interested in antiques when a young man, had many rare and interesting pieces at his home at 55 West Chestnut street, Wakefield. He was an authority on clocks and owned three interesting types of the Willard make.

He was one of the first members of the Wakefield Historical Society, a Mason and a member of the First Congregational Church. He leaves four brothers, Albert N. and Chester W. Gooch, of Wakefield; Winslow L. Gooch, forester for the Albemarle-Chesapeake Company, Inc., West Point, Va.; and Joseph L. Gooch, Bronxville, N. Y.

George G. Durant

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., Oct. 21, 1935—George G. Durant, resident agent of the Union Bag and Paper Company at Kaukauna, Wis., died Oct. 18 at Appleton, Wis. He returned from a business trip at an early hour in the morning, and was found dead on a street corner. Police pronounced his death suicide, from a bullet fired from a small caliber rifle. He left a note indicating that financial worries prompted the act.

Mr. Durant had been employed with the company for 25 years, and came to Kaukauna last February from Hudson Falls, N. Y. He is survived by his widow and two children. Private funeral services were held at Appleton, and the body was taken to Milwaukee, Wis. for cremation.

Edward O. Brown

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., October 21, 1935—Edward O. Brown, president and one of the founders of the Rhinelander Paper Company, Rhinelander, Wis., died last week at the age of 76. He was president of the Merchants State Bank of Rhinelander until two years ago. He also organized the Brown Brothers Lumber Company of Rhinelander, one of the largest of its kind in Northern Wisconsin.

Georgia Enthusiastic Over Paper Prospects

[FROM OUR REGULAR CORRESPONDENT]

WATERTOWN, N. Y., October 21, 1935—F. E. Decker, prominent manufacturer and banker of this city, returned recently from a trip to the South where he observed business conditions. He declared that the people in Georgia are enthusiastic over the possibility of shifting the newsprint industry from the North to the South and that while the slash pine industry is not yet perfected as far as newsprint is concerned the experiments are continuing. He believes that in years to come this new and economical method of making paper will probably be profitable.

New England Paper Mills More Optimistic

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., October 21, 1935—Phillips A. Hayward, chief of the Forest Products Division of the Department of Commerce has just returned from a New England trip during which he visited some dozen or more paper mills in and around Springfield and Holyoke.

"In practically every instance," said Mr. Hayward, "I found that there is a general feeling that conditions are much better in the industry, although there is some complaint as to prices. Considerable optimism is being felt for the coming year."

Government Paper Bids and Awards

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., October 23, 1935.—The Government Printing Office has received bids at 7.76 cents per pound for 5,000 pounds (25,000 sheets) of blue desk blotting paper from the following: R. P. Andrews Paper Company, Whitaker Paper Company, J. R. Howarth Paper Company, Old Dominion Paper Company, Barton, Duer & Koch Paper Company, and Mathers-Lamm Paper Company.

Bids at 6.54 cents per pound were received for 69,000 pounds (600,000 sheets) of green sulphite writing paper from the following: Cauthorne Paper Company, Whitaker Paper Company, R. P. Andrews Paper Company, Paper Corporation of the United States, J. R. Howarth Paper Company, Old Dominion Paper Company, Barton, Duer & Koch Paper Company, J. W. Butler Paper Company, and Aetna Paper Company. The bid of John F. Post was 6.29 cents per pound.

Bids at 11.951 were received for 18,900 pounds (150,000 sheets) of 50 per cent rag white bond paper as follows: Aetna Paper Company, Paper Corporation of the United States; Garrett Buchanan Company, Bulkley-Dunton & Co., Reese & Reese, Inc., Old Dominion Paper Company, Barton, Duer & Koch Paper Company, R. P. Andrews Paper Company, J. W. Butler Paper Company, Mathers-Lamm Paper Company, and Whiting Paper Company, A bid of 11.591 cents was received from the Whitaker Paper Company.

Bids at 12.7755 cents per pound were received for 15,075 pounds (150,000 sheets) of 50 per cent rag white ledger paper from the following: Aetna Paper Company, Paper Corporation of the United States, Garrett Buchanan Company, Bulkley, Dunton & Co., Reese & Reese, Inc., Old Dominion Paper Company, Barton, Duer & Koch Paper Company, R. P. Andrews Paper Company, J. W. Butler Paper Company, Mathers-Lamm Paper Company, and Whiting Paper Company. A bid of 12.63 cents was received from the Whitaker Paper Company.

Bids at 13.6 cents per pound were received for 5,000 pounds (38,000 sheets) of 50 per cent rag buff ledger paper from the following: Aetna Paper Company, Paper Corporation of the United States, Garrett Buchanan Company, Bulkley, Dunton & Co., Reese & Reese, Inc., Old Dominion Paper Company, Barton, Duer & Koch Paper Company, R. P. Andrews Paper Company, J. W. Butler Paper Company, Mathers-Lamm Paper Company, and the Whiting Paper Company. A bid of 13.44 cents per pound was received from the Whitaker Paper Company.

The following bids were received for 34,500 pounds (150,000 sheets) of 50 per cent rag buff index paper: Barton, Duer & Koch Paper Company, at 11.44 cents per pound; Charles Beck Company, 12.6565 cents; Whitaker Paper Company, 14.89 cents; R. P. Andrews Paper Company, 11.866 cents; Paper Corporation of the United States, 12.6565 cents; J. W. Butler Paper Company, 14.89 cents; Chapin & Gould Paper Company, 12.6565 cents; and Walker, Goulard, Plehn Company, 11.366 cents.

For 5,000 pounds (14,000 sheets) of 50 per cent rag yellow index paper: Barton, Duer & Koch Paper Company, at 13.65 cents per pound; Charles Beck Company, 12.6565 cents; R. P. Andrews Paper Company, 11.866 cents; J. W. Butler Paper Company, 14.89 cents; Chapin & Gould Paper Company, 12.6565 cents; and Walker, Goulard, Plehn Company, 11.366 cents.

The following paper awards have been announced by the Printing Office.

Barton, Duer & Koch Paper Company will furnish 34,500 pounds (150,000 sheets) of single ply 22½ x 28½, 50 per cent rag buff index paper at 11.48 cents per pound, bids for which were received on October 7.

John F. Post will furnish 61,200 pounds (600,000 sheets) of 28 x 34, 102 lbs., white sulphite bond paper at 6.06 cents per pound and the J. R. Howarth Paper Company will furnish 10,000 pounds (116,000 sheets) of 21 x 32, 50 per cent rag white ledger paper at 12.75 cents per pound. Bids for both of these items were received on October 4.

The R. P. Andrews Paper Company will furnish 4,000 pounds (25,000 sheets) of 19 x 24, 160 lbs., 25 per cent rag buff blotting paper at 9.7 cents per pound, bids for which were received on September 30.

Holyoke Wants Connecticut Navigable

HOLYOKE, Mass., October 21, 1935—The movement to secure a PWA appropriation for the making of the Connecticut River navigable to Holyoke and thus allow of the bringing of coal by boat to this city as well as to Springfield and Chicopee is gaining impetus. A conference was held recently in Springfield with army engineers and local representatives of the United Municipal Connecticut Navigation Committee over the matter.

Congressman Allen T. Treadway of this district, has secured the passage of an order through Congress to have the army engineers reopen the matter of such navigation. Mills of Springfield and Holyoke are large users of coal and thousands of tons are used annually by the Holyoke paper mills.

Several reports have been made in past years on this subject. One contemplated the building of a dam above Windsor Locks, Conn. There is a canal around the locks at this town but not large enough to allow the passage of barges of large size and below the town there are extensive mud and sand flats in the river. The matter has been agitated now for nearly 40 years with no tangible result.

It is figured that there is potentially a water freight of 1,250,000 tons annually with the river made navigable from Hartford to Holyoke.

Rogers Co. Furthering Plans to Move Factory

In a recent issue the Times of Hartford, Conn. says:—"Two new developments are seen this week in the anticipated transfer from Manchester to Killingly of the papermaking activities of the Rogers Paper Manufacturing Company.

"President Charles Ray promised present employes that they will be given an opportunity to work in the new plant, if the transfer takes place, and the firm has sold to Mr. Rogers a tract of land with 400 feet frontage on Hartford Road.

For two months negotiations between town officials, the paper concern and the Chamber of Commerce, intended to keep the Rogers Company, oldest of several firms making paper, in Manchester, have been at a standstill.

"Meantime Mr. Rogers has gone ahead with his plans for utilizing the Killingly plant recently purchased by his company.

"The quit-claim deed transferring to him the land on Hartford Road, gives his residence as Killingly. During the last few years while managing the plant he lived in West Hartford. The property is one of the three parcels sold by Gertrude H. Rogers, daughter of the founder, when the concern was purchased by Boston industrialists.

"The promise to give the present employes first opportunity to move to Killingly if the plant activities are taken there was made to Charles Garrow, president of Charter Oak Local, International Brotherhood of Papermakers."

Great Lakes Sale Protested

A special dispatch to *The New York Times* from Toronto, Ont., dated October 19, says:

"Possibility of the government of Ontario investigating the proposed sale of assets of the Great Lakes Paper Company to a 'United States interest,' consisting of publishers of newspapers in that country, has greatly perturbed holders of bonds of the company, who having foreclosed their mortgage, have agreed on a method of continuing the business. The agreement is awaiting approval of the Supreme Court of Ontario.

"In conference today with a special committee of the Ontario Cabinet, representatives of the Canadian Newsprint Manufacturers Association voiced strong protest against the suggested sale of the company's output to 'United States interests headed bv the Chicago Daily News' and contended that the deal would lead to a price war and tend to ruin Canada's paper industry.

"The deputation, comprising Charles Vining, president of the Manufacturers Association; A. R. Graustein, president of the International Paper and Power Company and the Hon. J. L. Ralston, spent several hours laying their case before Prime Minister Mitchell F. Hepburn, Harry Nixon, Provincial Secretary, Peter Heenan, Lands and Forest Minister, and David Croll, Labor Welfare Minister. Since the Cabinet committee has not yet heard arguments of the company's bondholders and representatives of the United States group, it merely listened to the deputation without giving any answer to the request that the proposed deal be dropped.

"While the Province has no direct control over the Great Lakes Paper Company, which is now operating under a receivership, it is in a position to dictate the terms of any deal, as it owns the 7,000 to 9,000 square miles of timber limits on which the company operates. These concessions in the Black Sturgeon, Pick River and Long Lac areas around Fort William constitute the most extensive timber limits held by any company in Ontario.

"While refusing to say just what action the government contemplated, Prime Minister Hepburn indicated that all parties involved would be interviewed."

N.A.W.M.D. Holds First Luncheon

With an attendance of over 40 members of the trade, the N.A.W.M.D. Luncheon Club, sponsored by the National Association of Waste Material Dealers, Inc., was launched on Tuesday of last week. The luncheon was held at the Hotel Astor, which had placed at the disposal of the club one of its most attractive dining room suites, with a large reception room which enabled members of the club to meet and greet their friends under exceptionally pleasant conditions and surroundings. The affair was strictly informal and a most friendly and social atmosphere prevailed. A number of instances were reported of concerns which had been doing business with each other, even within the metropolitan district, for a number of years whose representatives had talked with each other over the telephone but whose principals had never met until the meeting at the club luncheon.

There were practically no speeches of any kind and there will be very little in the way of speech making in the future as the whole purpose of the club is to offer members an opportunity to get together, to know each other better and thereby strengthen their business relationships as well as make new ones. Officers of the club will be elected at a later club session and the association has received assurances from practically every one of its metropolitan members and from many members located outside of New York that the club luncheons will have their enthusiastic support. A telegram was read at the luncheon Tuesday from Edward B. Friedlander, president of the association, reading as follows: "Because I so strongly feel that frequent personal contact under pleasant conditions are so valuable to the members of our industry I wish your luncheon club every possible success. Chicago and other centers are watching your experiment with great interest with view to also adopting the idea. I send you all my sincerest good wishes."

Joseph Schapiro and Harry S. Goldstein, representing members from Baltimore and Philadelphia respectively, strongly endorsed the club idea, pointing out the advantages it would bring to out of town members who can now plan their trips to New York to coincide with the dates on which the luncheon club was meeting. Frank C. Overton, former president of the association, also strongly endorsed the idea, stressing the point that it could bring not only dealers together but dealers and consumers as well.

The next meeting of the Luncheon Club is planned for November 19.

New Bulletin of Arc Welding

A new booklet illustrating and describing all the newest developments in arc welding electrodes and accessories is announced by The Lincoln Electric Company, Cleveland, Ohio.

This booklet is virtually a condensed manual on arc welding. Complete descriptions, applications and procedures are given for electrodes for all welding purposes—for mild steel, high tensile steel, light-gauge steel, 18-8 stainless steel, 25-12 stainless steel, high manganese steel, cast iron, aluminum; for hard facing to resist moderate shock and abrasion, rolling or sliding abrasion, impact and severe abrasion, and for making tool-steel cutting edges. The complete procedures for each electrode give the polarity, current range, arc votes for every size of every electrode in every welding position.

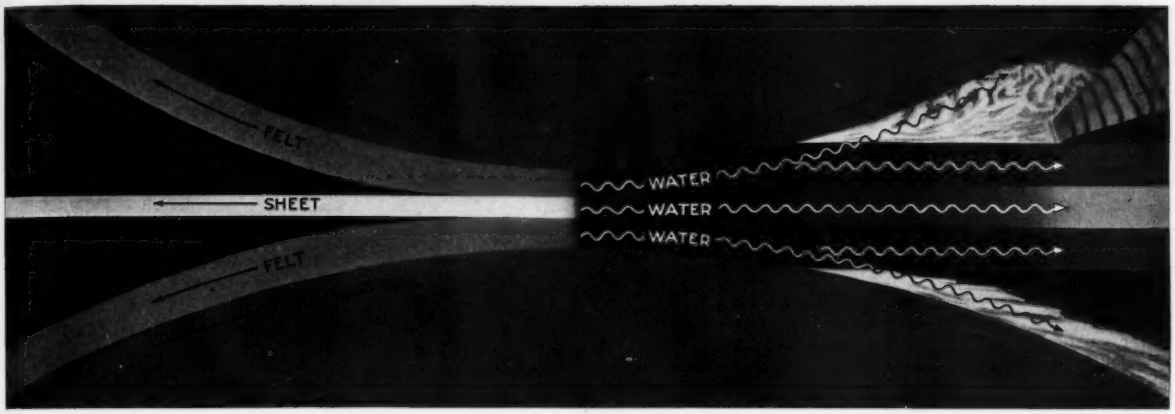
In addition to complete instruction on the use of all Lincoln Electrodes the new booklet contains illustrations and details of all the latest arc welding accessories and supplies which facilitate use of the electric arc and increase the comfort of the operator. The newest type of electrode holders are easier to handle, yet more efficient and more durable than former types. Protective shields, both face and head type, are lighter and more comfortable, yet afford increased protection. Protective clothing including gloves, sleevelets, aprons, leggings and spats are all designed to provide greater comfort for the operator. New welding cable is more durable, yet it reduces operator fatigue by its greater flexibility. Wire brushes, welding booths, supplies for automatic welding, repair parts are fully described.

The new arc welding manual is printed in two colors on coated stock in clear, readable type. Copies are available without charge on request to The Lincoln Electric Company, Cleveland, Ohio.

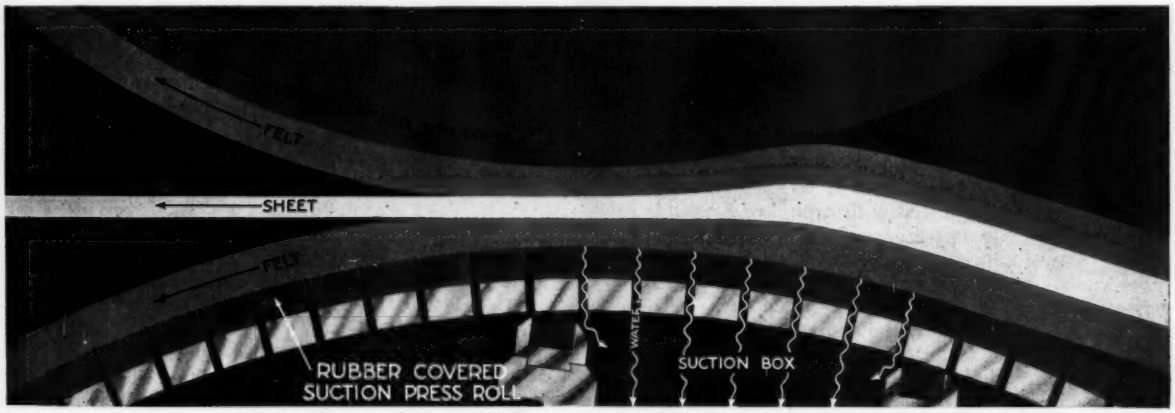
Correction

In announcing the election of officers of the Miami Valley Division of the American Pulp and Paper Mill Superintendents Association in a recent issue of the *Paper Trade Journal*, it was stated that the first vice-chairman, Val Friedrich, was superintendent of the finishing department of the Champion Coated Paper and Fibre Company. Mr. Frederick is not superintendent of the Champion Paper and Fibre Company, but is connected with the Beckett Paper Company, of Hamilton.

DOWNINGTOWN



Water pressed from the sheet and felt between any pair of plain, solid press rolls can only be expelled horizontally BEFORE THE NIP, as shown above. Water forced back through on-coming sheet at a pressure three or four times that of the lineal inch pressure on the top roll. Fibres are practically blasted out of place and check marks result.



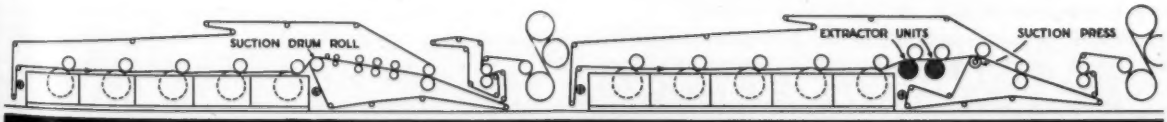
VERTICAL, STRAIGHT LINE WATER REMOVAL

SUCTION PRESS ROLLS

SUCTION DRUM ROLLS

EXTRACTOR ROLLS

Downingtown Duo-Dehydration (correct combination of "suction" and "extraction") permits all water to be removed, VERTICALLY DOWNWARD through the drilled face of Rubber Covered Suction Press Rolls (as illustrated) or similarly through the wire face of Extractor Rolls. High, back-pressure is thus eliminated and safe running assured at high speed. . . . Only Downingtown builds all three types of rolls (Suction Press Rolls, Suction Drum Rolls and Extractor Rolls), therefore it will pay you to get our impartial recommendations before making any wet end changes. . . . The Downingtown Mfg. Co., Dowingtown, Pa.



No Board Machine is Modern *Without* DUO-DEHYDRATION

CONSTRUCTION NEWS

A Summary of Vital Facts Regarding Construction, Finances and Operation of Paper Mills

Construction News

Emeryville, Cal.—The Paraffine Companies, Inc., 475 Brannan street, San Francisco, Cal., manufacturer of building papers and kindred paper stocks, has superstructure in progress for proposed new addition to mill at Emeryville, previously referred to in these columns, estimated to cost about $75,000, including equipment. It is proposed to have unit ready for service in near future for increased operating facilities.

Massillon, Ohio—The Pulp Products Company, 60 East 42nd street, New York, N. Y., manufacturer of moulded paper specialties, including displays, signs, novelties, etc., will operate a new plant unit at Massillon, where property was secured some time ago. It is expected to develop large output at new location. Moulded Displays, Inc., New York address noted, will be closely identified with the first noted company, and will have exclusive rights for the sale of its products. Roy Sheldon is president of Moulded Displays, Inc.; he was formerly vice-president of Kay Displays, Inc., New York.

Long Island City, N. Y.—The L. & S. Specialty Company, Inc., recently organized with capital of $5000, is said to be planning early operation of local paper-converting plant for manufacture of paper bags and containers of various kinds. New company is represented by Jacob L. Greenstein, 25 West 43rd street, New York, attorney. James C. Paradise is one of the incorporators.

Houston, Tex.—Clarke & Courts, Inc., 2402 C street, Galveston, Tex., wholesale paper goods, has closed bids on general contract for proposed new branch storage, distributing and paper-converting plant on West Clay street, near Van Buren street, Houston, recently noted in these columns. Superstructure will be placed under way at early date. New unit will be one-story, 180x220 feet, and is estimated to cost close to $75,000, including equipment. Joseph Finger, Inc., National Standard Bank Building, Houston, is architect.

Chicago, Ill.—The National Gypsum Company, 111 West Washington street, manufacturer of gypsum sheet products, wallboard specialties, and other allied products, has plans under way for expansion and improvements in main plant of the Universal Gypsum & Lime Company, 105 West Madison street, Chicago, in Eastern part of country, estimated to cost over $400,000, including machinery. Considerable increase in present capacity will be carried out. Last noted company was recently acquired by the National company, and has now been merged with that organization. Melvin H. Baker is president.

Hopewell, Va.—Compania Nitro Chimica Brasileira, Ltd., Rio de Janeiro, Brazil, a recently organized interest of the Tubize Chatillon Corporation, 2 Park avenue, New York, N. Y., manufacturer of cellulose rayon products, has large working force engaged in removing and shipping machinery and equipment at the Hopewell plant of the last noted company. The mill will be entirely dismantled and all machinery sent by water route from Norfolk, Va., to site of proposed new mill on land near Rio de Janeiro.

It is proposed to complete the plant dismantling by the close of the year. The new Brazil mill will comprise several large production units, with power house, machine shop, pumping station and other mechanical structures, and is scheduled for completion during the summer of 1936. In addition to the equipment from the Hopewell plant, other machinery will be installed. Entire project is reported to cost over $1,500,000. Klabin, Irmaos & Company, Ltd., and S. A. Fabrica Votorantim, both of Rio de Janeiro, are interested in the new Brazilian organization.

Richmond, Va.—The duPont Rayon Company, Ampthill, near Richmond, manufacturer of cellulose rayon products, is reported planning further expansion at local mill, where extensive construction program was lately completed. No estimate of cost of proposed work has been announced. Executive offices are at 350 Fifth avenue, New York, N. Y.

Detroit, Mich.—The Seaman Patrick Paper Company, Vermont street, has plans maturing for new one-story addition to plant, for storage and distribution, and it is expected to proceed with superstructure at early date. It is reported to cost close to $25,000, with equipment. Frederick J. Winters, Book Building, Detroit, is architect.

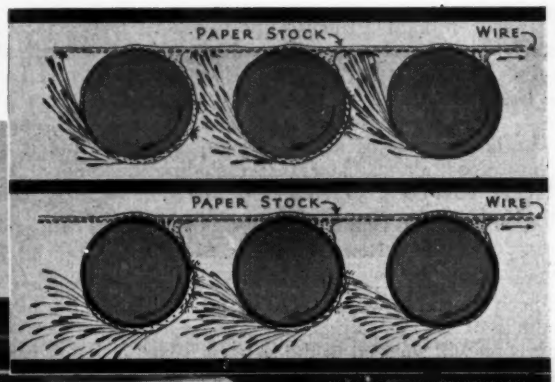
Berlin, N. H.—The Brown Company has consummated arrangements with the State of New Hampshire and City of Berlin for financing in amount of $2,000,000, insuring continuous operations at local pulp and paper mill, as well as at pulp wood properties, for many months to come, or well into 1937. All mill departments are now on active production basis, giving employment to regular working quota.

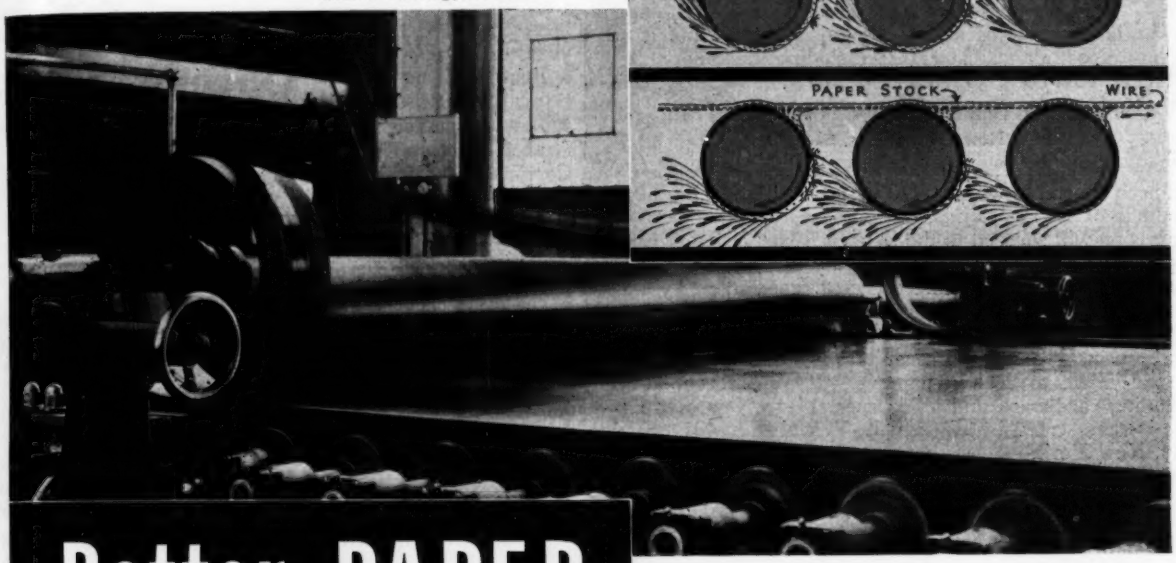
Syracuse, N. Y.—The National Cellulose Corporation, 366 Fifth avenue, New York, N. Y., manufacturer of cellulose paper products, is completing remodeling and proposed improvements in building on Sunset avenue, Syracuse, recently acquired, as previously referred to in these columns, and will occupy for new branch plant at early date. Equipment will be installed to give employment to an initial working force of about 100 persons. Main plant of company at Baldwinsville, N. Y., will be continued in service as heretofore. John J. Sullivan is plant manager.

Buffalo, N. Y.—The Buffalo Box Factory, 2 Scoville avenue, manufacturer of paper boxes and containers, is increasing production schedule at the plant, with additions to working quota. Company is now giving employment to about 70 operatives in different departments, and proposes to hold to present schedule for an indefinite period.

Prince Rupert, B. C.—The Mutual Pulp and Paper Mills, Ltd., recently organized, is said to be having plans prepared under direction of L. A. DeGuere, Wisconsin Rapids, Wis., paper mill engineer, for proposed new pulp

RIGHT: *Upper drawing shows how brass table rolls throw water up against bottom of the wire. Lower drawing shows how Dukbak Table Rolls cast water down, without disturbing formation.*





Better PAPER Lower COST• •

two of the many ways you save by use of

Goodrich DUKBAK

Rubber Table Rolls

ALL *products problems* IN RUBBER

THE two worst enemies of good formation are high-and-low spots in the wire, and water thrown up against the bottom of the sheet. You can eliminate both by use of Goodrich Dukbak rubber-covered Rolls.

Goodrich Rolls are made on steel cores—lighter than brass, yet stronger. They never sag—always stay true and give absolutely uniform contact with the wire.

These rolls are covered with a special Goodrich rubber which has as low affinity for water as a duck's back. This rubber throws water *down*—does *not* carry it up against the bottom of the wire. Result of these two advantages is greater water removal. If you want to hold water longer, simply use fewer rolls.

Because Goodrich Dukbak Rolls last longer, can be reground easily, reduce wear of the wire, can be straightened if bent by dropping, are corrosion-proof, they reduce maintenance costs in every mill using them. Write for your free copy of "Modern Trends in Table Roll Construction," by E. Peterson, Goodrich specialist in paper-mill rubber goods. The B. F. Goodrich Co., Mechanical Rubber Goods Div., Akron, O.

ROLL COVERINGS—BELTING—HOSE—MISCELLANEOUS RUBBER PRODUCTS

and paper mill at Prince Rupert, where large tract of waterfront property, including shipyard, heretofore held by the Grand Trunk Pacific Development Company, Ltd., has been purchased, as previously reported in these columns. New plant will comprise several units, equipped for initial capacity of about 250 tons per day, and is reported to cost about $5,000,000, including machinery. Mr. DeGuere has been active in organization of new company, and will be identified with official personnel.

New Companies, Etc.

New York, N. Y.—The Salwen Paper Company, Inc., has been chartered with capital of $20,000, to deal in paper products of various kinds. It is understood that new organization will succeed to the Salwen Board & Paper Company, Inc., New York, which recently filed notice of company dissolution. Both interests are represented by Barnett & Mintz, 26 Court street, Brooklyn, attorneys.

New York, N. Y.—The White Paper Company, Inc., has been incorporated with capital of 100 shares of stock, no par value, to deal in paper goods of different kinds, including cardboard and allied specialties. New organization is represented by Edward L. Tanenbaum, 401 Broadway, New York.

Clifton, N. J.—The Clifton Fiber Board Company, Inc., has recently been organized to operate a local mill for production of fiberboard specialties. Nicholas R. Fiore, 24 Commerce street, Newark, N. J., is company attorney and representative.

Brooklyn, N. Y.—Abety Paper Stock, Inc., 167 North Ninth street, has filed notice of company dissolution under state laws. Frank Klipper, 116 Nassau street, New York, is company representative.

New York, N. Y.—F. Osborne & Co., Inc., has been organized with capital of $20,000, to deal in paper products of various kinds. New company is headed by Fred Osborne, 116 John street, New York; Herbert Bond, Railroad avenue and Ward street, Paterson, N. J.; and William J. Taylor, Tarrytown, N. Y.

New York, N. Y.—The Frisco Paper Stock Company, Inc., Bronx, has been chartered under State laws with capital of 100 shares of stock, no par value, to deal in paper goods of different kinds. The incorporators include Abraham G. Cohen, 104-48 116th street, Richmond, S. I., and Charles W. Newmark, 612 Ocean avenue, Brooklyn. N. Y.

Los Angeles, Cal.—The National Tag Company of California, Inc., has been incorporated with capital of 100 shares of stock, no par value, to manufacture and deal in paper tags and kindred commercial paper goods. The incorporators are Alexander D. McLean, Sr. and Jr., both of San Francisco, Cal. Abraham A. Silberberg, 285 Madison avenue, New York, N. Y., is attorney for company.

New Mexico's First Paper House Opens

[FROM OUR REGULAR CORRESPONDENT]

ALBUQUERQUE, N. M., October 18, 1935—With the opening of the Butler Paper Company office and warehouse Tuesday at 121 East Tijeras avenue, New Mexico has its first wholesale paper house.

The new concern will be under the personal direction of Donald M. Judd, salesmanager, who will be assisted by Joseph A. Dryer, formerly of Denver. Officials of the company, E. B. Erskine, and E. K. Erskine, as well as Mr. Judd, are well known to the trade in New Mexico, having covered this territory from Denver for many years.

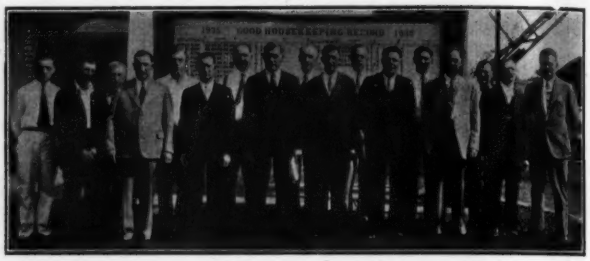
The New Mexico house is affiliated with Butler Paper Corporation, Chicago, one of the oldest paper houses in the country, established in 1844.

Charter Members of Twenty Year Club

This is a group picture of the charter members of the Twenty-Year Club, organized by the employees of the Cornell Wood Products Company, Cornell, Wis., who have been employed by this company for a period of twenty years or more.

Reading from left to right, the members are: Andrew Bork, Ben Russell, Ole Johnson, Thomas Smith, Earl Miller, Emmett Barney, Frank Stanek, Carl Johnson, George Rivers, Charles Popple, Morris Selmer, Archie Coggins, Tom Vasseur, Vincent McIntyre, George Baribeau, Ed. Simenson and A. W. Miller.

A. W. Miller, vice-president of the Cornell Wood



TWENTY YEAR CLUB OF CORNELL WOOD PRODUCTS CO.

Products Company and Emmett Barney, mill superintendent, are charter members of the club.

The Cornell Wood Products Company presented each member of the club with a gold ring which is inscribed with the club name.

The club officers are: George Rivers, president; Charles Popple, vice-president; Morris Selmer, secretary and historian.

Silent Drive Selector

The Morse Chain Company, of Ithaca, N. Y., has just brought out a silent chain drive selector in which many members of the paper industry will doubtless be greatly interested. This selector takes the mystery, as it were, out of the silent chain design. It makes it a simple matter for any man whether he be an engineer or not, properly to select a chain drive within a range of ½ to 150 H.P. or about 95 per cent of the actual installations. It selects the number of teeth in the sprockets, pitch and width of the chain, gives the standard center distance, figures the chain length, gives the diameters of the sprockets and even indicates the sizes which are carried in stock. The selector will be of help to duplicate machinery accounts designing chain drives for their equipment and it will be of help to the customer who uses an occasional drive in his plant.

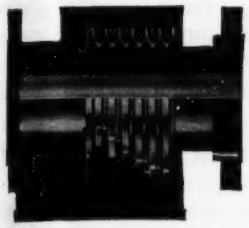
Paul Joslin Joins Minnesota & Ontario

Paul Joslin, who has been associated with the Flambeau Paper Company for the past nineteen years, has joined the Minnesota and Ontario Paper Company in the capacity of merchants sales representative, with headquarters at Chicago.

Mr. Joslin has had a wide experience in the production and distribution of the groundwood papers handled by paper merchants generally and will have an active part in the development and marketing of the new lines in these papers.

A Packless Expansion Joint Based on a New Principle

The American District Steam Company, North Tonawanda, N. Y., has patented and is placing on the market a new packless expansion joint, known as the U-Ring Type, based on an entirely new principle for controlling pipe expansion in steam and hot water lines, or pipe lines conveying gases or fluids subject to temperature variations.



The expansion element is a series of die-formed, "U-Rings" of stainless alloy steel, welded together without transverse seams by a special process which retains the basic strength of the metal. One end is welded to the wrought steel body of the joint and the opposite end is welded to a plate that is in turn welded to the sleeve.

The joint is installed with the expansion element compressed so that under actual operating conditions, the element is in a neutral or normal position, free from flexing strain when under maximum line pressure. Control rings and stop-bolts distribute the expansion and contraction movement equally through the U-Rings.

The new ADSCO Packless Expansion Joint, U-Ring Type, is fully guided at three points to permit the sleeve to move freely without binding. It is made with a wrought steel body which fully encloses the expansion element and protects it from damage or dirt. The joint is available for pressures to 400 lbs. and temperatures to 800 degrees F. with flanged ends or beveled ends for welding directly into the pipe line; with or without anchor base.

Any reasonable amount of traverse can be provided, with a normal range of 1 inch to 8 inches. The full amount of traverse is available as the element is under least flexing strain when the sleeve reaches its rated traverse.

The new ADSCO Packless Expansion Joint, U-Ring Type, does not require service or maintenance and is especially desirable for underground pipe lines, power house piping or inaccessible locations where space is limited.

A new Bulletin, No. 35-50, which fully illustrates and describes the new ADSCO Packless Expansion Joint, U-Ring Type, is now available upon request.

Improvements at Ontario Mill

Replacements and renovations now being carried out at the sulphite pulp plant of the Howard Smith Paper Mills at Cornwall, Ont., will involve an ultimate expenditure of between $75,000 and $100,000. The principal job completed to date is the installation of a new screening system. Work is proceeding on a circulating system in the sulphite pulp department and it is expected that this feature of the work will be completed in the near future.

To Handle Elgin Softener Equipment

The Kent-Ervin Engineering Company, 732 Builders Exchange Building, Minneapolis, has been appointed agents to handle the line of boiler water conditioning and control equipment manufactured by the Elgin Softener Corporation, Elgin, Ill. The Kent-Ervin organization will serve Minnesota, North-west Wisconsin, and North and South Dakota.

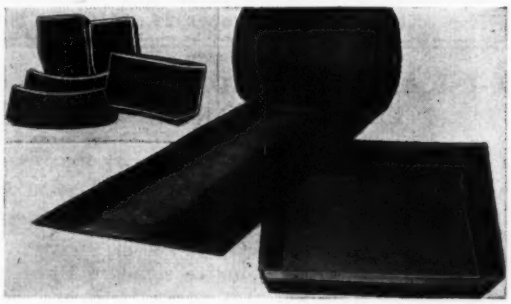
New Developments in Rubberizing

That there is a need for rubber covering for a great variety of purposes has been recognized for several years. However, the rapid extension of such usage or practice has been prevented by the difficulty to developing a product which could be easily and economically applied by the purchaser and yet give satisfactory results in service.

Now a rubber in liquid form, and a rubber in plastic form, also are being offered which fulfill the above requirements and which have proven satisfactory in several years' test by some of the largest industrials in the country.

The application of this new liquid rubber called "Self-Vulc" has recently been improved by the development of a new priming compound, which makes good results possible by the application of a single priming coat; and both the priming and liquid rubber can be applied just like paint—brushed on, sprayed on, dipped on, or poured on. The rubber vulcanizes itself when exposed to the air.

"Self-Vulc" plastic is applied with a spatula or other flat tool and like the liquid, requires only one prime or



SELF-VULC APPLIED AS A TANK LINING AND RESURFACING A CONVEYOR BELT. AIR-VULC APPLIED TO METAL PARTS TO PROTECT AGAINST ABRASION.

preliminary coat and vulcanizes itself cold, when exposed to the air.

"Self-Vulc," liquid or plastic, is being applied for the following general purposes:

1. To protect inside and outside surfaces against: A, abrasion; B, corrosion; C, Acids. 2. To restore surfaces of all kinds of material which have been worn away by abrasive action, acids and their fumes. 3. To water-proof or corrosion-proof all kinds of containers and surfaces. 4. To absorb shocks on surfaces subjected to impact, and thus prevent bending and breakage as well as abrasion. 5. To silence noises.

"Self-Vulc" liquid and "Self-Vulc" plastic are sold by the Self-Vulcanizing Rubber Co., Inc., Room 515-G, 605 West Washington Boulevard, Chicago, Illinois.

M. D. Lupton Speaks on Paper Making

[FROM OUR REGULAR CORRESPONDENT]

INDIANAPOLIS, Ind., October 21, 1935—Marshall D. Lupton, vice-president and assistant secretary of the Beveridge Paper Company here, was the principal speaker at the last meeting of the Indianapolis Rotary Club, talking on his own plant. He explained that the plant used enough water each day to supply a city of 100,000 persons. He traced the history of paper making from ancient times to the present day. There has been a paper mill on the site of the plant here for sixty years. Mr. Lupton has been connected with the company for 32 years.

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TECHNICAL ASSOCIATION SUGGESTS NEW CLASS OF STANDARDS

At present the Technical Association of the Pulp and Paper Industry in its Manual of Standard Testing Methods, Specifications and Recommended Practices recognized only official and tentatively official standards.

A procedure becomes a tentative standard when it has the approval of three-quarters of the members of the sponsoring committee. To become an official standard it must be voted on and approved by the Association membership.

Since there is an evident need for the recognition of a class of procedures that because of insufficient study or other reasons can not be approved by any committee under the present system, it was decided at the fall meeting by the Executive Committee, to provide for a third class of standards to be known as "Suggested Standards," these to be approved as such by a majority vote of an appropriate committee. Methods dealing with dirt in pulp, creping stretch, brightness and others could very soon be adopted as "Suggested Methods."

There is also a need for standard mill control testing methods, such for example as free rosin in rosin sizing, analysis of soda black liquors, soda black ash, boiler flue gases, etc. Research reports dealing with operating details in mills are not of much value where they involve tests of this kind unless the testing is done by some procedure recognized by the Technical Association.

To assist the various committees, members of TAPPI are invited to send to the Secretary, 122 E. 42nd street, New York, details concerning any testing methods used by their companies which are not included in the TAPPI Manual of Standards.

In this way a set of "Suggested Standards," can very quickly be compiled and issued to the entire membership, thereby doing much to establish a recognized common language of tests of all kinds.

WHAT ARE YOU WILLING TO PAY?

Mr. George Paull Torrence, president of the Link-Belt Company in the current issue of Link-Belt News asks "What are you willing to pay?"

The Social Security Act, the Four Billion Dollar Relief Act, and other measures passed by the last Congress, provide for the expenditure of vast sums. By the Security Act, the states are encouraged (almost compelled) to increase their expenditures. The expenditures of the federal government are most talked about, but the amount being spent includes also state and local expenditures. The total is a staggering figure.

Taxes of various kinds are the sources of government money. While taxes are collected in dollars, neither the government nor individuals use dollars just as dollars. Government dollars are used for buildings, ships, roads, salaries, wages, the army and navy, and many other things. In the same manner in which the government converts money received, into things, the taxpayers convert tangible things into money to pay the government. When collecting taxes the government either takes property that has been converted into money, or money that otherwise might be converted into property. Property is wealth. Government money is secured by taking actual and potential wealth from the citizens.

Wealth can be taken only from those who have wealth. Those who have property, and those who have jobs and income, are the ones who pay. It is not just those who have much who pay, but also those who have little. Every income, no matter how small, is smaller because of government expenditures.

Everyone who has anything pays tax, because taxes are either collected from, or passed on to, all who receive income and all who spend. Income taxes are one example. They may seem to bear only on those with income, and those who do not pay directly may not be concerned by the eating up of wealth in this way. The effect is more widespread than just on the person paying the tax. Every tax paid by a business concern comes from money that otherwise would have been available to some individual directly at lower prices, higher wages, or more dividends, or, indirectly, through plant expansion, the benefits of which would also go to individuals. Income tax is paid, not only by business concerns, but by recipients of dividends and wages also. Again, it may seem that wealth is taken only from the individual who pays, but if the individual had retained the money paid as tax, he would have done something with it; and almost any use would have produced private business of some kind, and, therefore, additional income to others.

Income taxes are not the only ones affecting many. Money for state and local expenditures usually is raised by direct tax levies on property. Property taxes paid by a business concern must come from the only source of income—the customer, who pays the tax by paying a higher price, in the same way that the customer pays a sales tax. These indirect tax payments, even though they are hid-

den, mount high, and are a heavy drain on the wealth of all who have anything. A recent striking example of hidden indirect taxation is the processing tax on meat, grains and cotton. The government is paid by the processor, but actually the tax is paid by the customer. Now we get only two pork chops for the price which formerly bought three. The government has taken the third chop to the extent that the processing tax has increased the cost.

Normally, about 50,000,000 people are gainfully employed in the United States in private industry, business and agriculture. Various estimates place those still unemployed in private pursuits, at 10,000,000. If these estimates are correct, 40,000,000, or 80 per cent, are employed. These gainfully-employed receive more than four-fifths of the national income, so that it is they—the 40,000,000—they and their families—who carry most of the tax load.

The present rate of taxation cannot be taken as a basis for estimating what the load will be in the future. Additional taxes will be required to pay expense already incurred, and no one can guess what the next Congress will spend. As the last Congress failed, by billions of dollars, to provide the taxes necessary to cover appropriations, sufficient taxes must be levied later unless, by repudiation or currency inflation, the government fails to pay what it has borrowed as government bonds and notes. These taxes must bear heavily on the 40,000,000 who pay. The Four Billion Dollar Relief Bill alone is $100.00 for each of the 40,000,000. If it is true that the last Congress appropriated ten billion dollars, the 40,000,000 will pay at the rate of $250.00 each.

It is not suggested that, to avoid taxes and payments from wealth, we have no government. Some government is necessary to law and order, safety and justice, and to the preservation of means for creating wealth. It is not suggested that we have no army or navy. It is not suggested that we fail to give adequate relief to those in need. It is suggested, however, that every individual who has a job and who has property, and, therefore, who pays, review what the government has done and plans to do. What has been done must be paid for, but, this being a free country governed by the majority, the 40,000,000 (the 80 per cent) who pay the government bills, have the power to decide for themselves what shall be the government functions, and how much income and wealth they are willing that the government shall take.

As one of the 40,000,000 who pay, Mr. Torrence suggests you should tell your congressmen, state legislators and local officials how much of your wealth you want them to spend . . . whether you want government expenditures increased or decreased.

K. & M. Paper Co. Incorporates

WATERTOWN, N. Y., October 21, 1935—Incorporation articles have been filed under state laws by the K. & M. Paper Company, of this city, showing a capital stock of $20,000 consisting of 100 shares of preferred stock and 1,000 shares of common. The charter rights are perpetual and the company is authorized to carry on business in paper products of various kinds.

Weekly Production Ratio Report

Reports to the American Paper and Pulp Association show the following Over-All Production Ratios for the designated periods.

	Reporting Mills—Number	Reporting Mills—Capacity	Total Production Ratio
September, 1934	292–299	.....	59.4%
October, 1934	297–394	.....	64.7%
November, 1934	385–399	.....	61.7%
December, 1934 (a)	396–404	.....	62.1%
January, 1935	397–411	.....	65.8%
February, 1935	407–409	.....	70.0%
March, 1935	406–408	.....	70.5%
April, 1935	405–407	.....	70.0%
May, 1935	381–407	.....	69.4%
June, 1935	357–376	.....	72.3%
July, 1935 (b)	357–358	.....	67.8%
August, 1935	346–354	.....	70.9%
*Week ending September 7, 1935 (c)	347	120,242	76.6%
*Week ending September 14, 1935	346	144,551	72.7%
*Week ending September 21, 1935	347	144,577	76.1%
*Week ending September 28, 1935	345	144,145	74.9%
*Week ending October 5, 1935	339	143,507	75.2%
*Week ending October 12, 1935	260	103,762	72.0%

Statistics showing the number of mills reporting by ratio groups are given below:

NUMBER OF MILLS REPORTING

	Week Ending Sept. 7 1935	Sept. 14 1935	Sept. 21 1935	Stept. 28 1935	Oct. 5 1935	Oct. 12 1935
0% to 50%	98	103	102	95	96	71
51% to 100%	249	243	245	250	243	189

*Subject to revision.

According to reports from the National Paperboard Association per cents. of operation, based on "Inch-Hours" were as follows:

September, 1934	62%	June, 1935	65%
October, 1934	63%	July, 1935	59%
November, 1934	56%	August, 1935	65%
(a) December, 1934	53%	September 7, 1935	61%
January, 1935	61%	September 14, 1935	72%
February, 1935	67%	September 21, 1935	71%
March, 1935	67%	September 28, 1935	75%
April, 1935	61%	October 5, 1935	75%
May, 1935	61%	October 12, 1935	76%

(a) Capacity and percentage data exclude December 25, 1934
(b) Capacity and percentage data exclude July 4, 1935
(c) Capacity and percentage data exclude September 2, 1935

Revised statistics covering delinquent mill returns will be shown in later reports.

Increasing Use of Paper Yarn in Germany

WASHINGTON, D. C., October 16, 1935—The substitution of paper and pulp in the manufacture of textiles is making noteworthy progress in Germany, according to advices received in the Forest Products Division, Department of Commerce. This development, it is pointed out, has resulted from the tendency on the part of the German business planning administration to replace, as far as possible, imported raw materials with those produced domestically.

While paper yarn can hardly be relied upon to replace cotton, wool, or silk, it does offer a possible substitute for a large part of the hemp, jute, sisal, and similar textile fibers, which in 1934 cost Germany approximately 56 million marks, it was stated.

There are many uses for paper yarn in Germany where it can hardly be regarded as a substitute, the report states. In the province of hangings, tapestry, and braided ornaments it has been used for many years. A more recent development is in the manufacture of both men's and women's hats.

Manufacture of many varieties of rugs and mats incorporate paper yarn either in the backing or in imitations of straw and fiber weaves. Coarse twisted yarn, colored for the most part, is used in the manufacture of these articles, which enjoy great popularity in the low-priced field. Paper is also used in Germany in the manufacture of binding twine, the report states.

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Section of the
Technical Association of the Pulp and Paper Industry
Edited by Ronald G. Macdonald, Secretary

The Optical Characteristics of Paper

II—A Precision Opacimeter

By F. A. Steele[1]

Abstract

The technical details of the design, construction and calibration of an instrument to measure paper opacity.

In a previous publication (*1*) the author presented certain mathematical relationships in regard to the optical characteristics of paper and showed the correlation between the theoretical and experimental findings. Since the publication of this paper, there have been a number of requests for a description of the instrument with which the optical measurements were made. In the present paper this instrument is described in considerable detail, the intention being to include all the information which would be required by any one wishing to construct one.

For control work in the manufacture of paper, it is perhaps satisfactory to be able to measure opacity to about the same precision that it can be graded or distinguished visually, or to about one point in contrast ratio. This precision is not sufficient for research purposes, however, particularly when the characteristics of opacifying pigments are being investigated. For example, if a pigment were being studied, 7 per cent of which increased the contrast ratio of a sheet from .90 to .95, only about 5.2 per cent would be required to increase it to .94. If the opacimeter would not differentiate clearly between these two samples, the error in evaluating a pigment of this type would be very great indeed. An instrument capable of readings reproducible to at least .2 per cent in contrast ratio and reflectivity is to be desired. Other desirable characteristics which need no discussion might be listed categorically as follows:

The instrument should have as high an absolute accuracy as possible; i.e., it should not require calibration against a standard instrument.

It should measure a reasonably large area of paper.

It should be stable and easy to operate so that it will be reliable in the hands of assistants with a minimum of supervision.

It should be adaptable to small samples.

It should be reasonable in first cost.

A number of possible designs were considered in constructing this opacimeter, but only the one finally selected will be discussed. The general construction of the instrument can be seen from the detailed drawing, Fig. 1, and the photograph, Fig. 2. In the drawing, 1 is one of four upright members which form the vertical part of the framework. 2 is the illuminating sphere, 3 and 4 are bent strips of brass which add rigidity to the structure. 5 is a brass plate which forms a part of the framework and furnishes a flat surface to receive the sample. It carries a 2-inch hole in the center over which the sample is placed. 6 is a similar plate beneath the sphere, which is attached by the angles, 7. 8 is a collimating tube carrying an aperture 9 at the top. 10 is a holder for glass filters and 11 is the holder for the correction filter and the light-sensitive cell. The cell is connected to a galvanometer which is not shown in the illustrations. 12 is a socket for one of the illuminating bulbs.

The operation of the instrument is probably clear from this description. In short, the sample, which is placed over the opening in the top plate, is diffusely illuminated by the walls of the sphere, which are in turn illuminated by the electric bulbs. These bulbs are shielded so that they do not shine directly on the sample. Light reflected from the sample passes through the aperture, 9, through the tube, and on to the light-sensitive cell. This cell has the property of generating current which is directly proportional in strength to the intensity of the light falling upon it. Therefore, the galvanometer, which is arranged to measure current, deflects in proportion to the amount of light reflected from the sample. In measuring the opacity of paper, the reflectance of the sample is determined when covered with a black and with a white background, respectively, so the problem of measuring opacity is essentially one of measuring reflectance.

The construction and operation of this instrument offered a number of minor difficulties, all of which have been satisfactorily solved in one way or another. While any one wishing to construct a similar device would doubtless incorporate features of his own, a detailed discussion of the points which might cause difficulty will be given. Some of these are merely structural details peculiar to the design of this particular instrument, while others are of a considerably more general nature.

General Construction

Since the sphere is constructed of thin aluminum, it

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should not be depended upon to contribute mechanical strength or rigidity to the instrument. The plates, 5 and 6, and the four vertical bars, 1, constitute the rigid framework and the joints should be firmly assembled with screws so that the instrument can be taken apart and reassembled accurately. The tube, 8, and the filter and cell holders, 10 and 11, should be well made and securely attached to the lower plate, so that accurate alignment is secured and maintained.

The Illuminating Sphere

The illuminating sphere is an aluminum ball aerial of the type that was quite popular a few years ago. As shown in the drawing, it is made in two halves which are attached with a removable clamp. The top half is fastened to the top plate with rivets while the bottom half is supported by the lamp sockets which are attached to the vertical bars.

The finish on the inside of the sphere has caused some trouble. The first instrument of this type which was constructed was painted white and fumed over the paint with

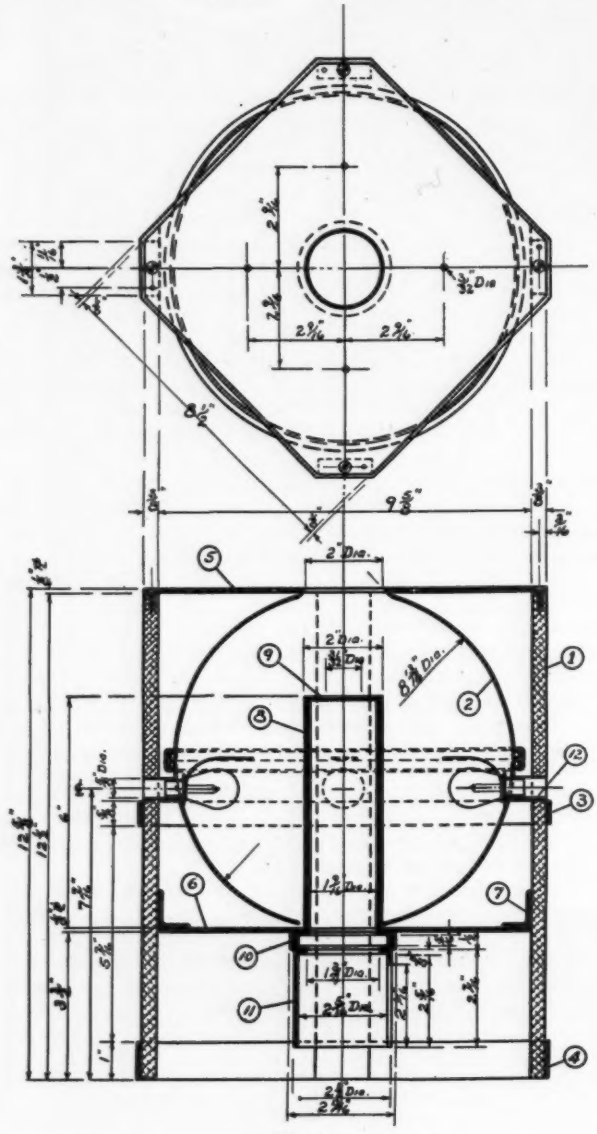

Fig. 1

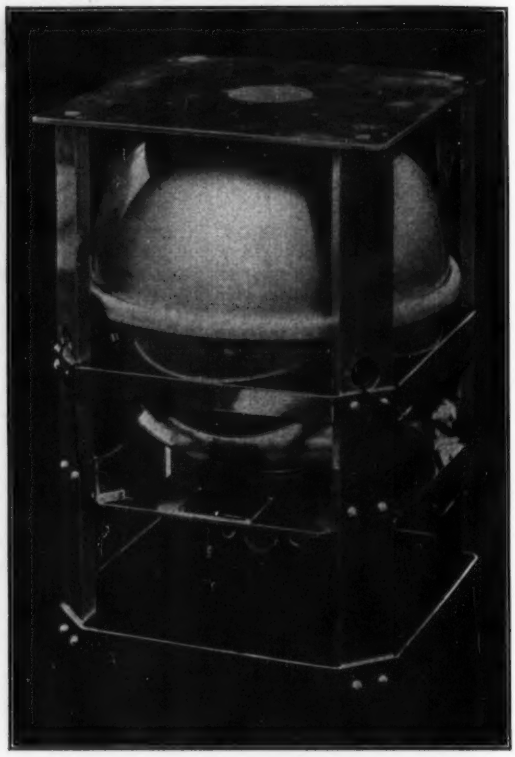

Fig. 2

MgO from burning magnesium ribbon. While such a finish is satisfactory for a time, it is tedious to apply and none too permanent. In finishing the sphere for a second instrument, another procedure was developed which was much more satisfactory. The surface is first thoroughly cleaned with 10 per cent trisodium phosphate solution, and then painted with a mixture made as follows: Rub 100 grams of U.S.P. zinc oxide to a smooth paste with 100 cc. of distilled water. Then add in small portions, 40 cc. of S-brand sodium silicate. This mixture is quite puffy, but is not difficult to brush out. Three or four thin coats will give a finish with a reflectance of about 94 per cent. It is important to allow each coat to dry thoroughly, and to moisten the finish well before applying the successive coats. This paint cannot be applied satisfactorily to previous coats which have not been moistened. The outside of the collimating tube should be painted with the same material.

The Collimating Tube

It is important that the inside of the collimating tube be given a good flat black finish so that light not from the sample will be absorbed on the walls rather than reflected to the light-sensitive cell. No paint or lacquer has been found which is sufficiently absorbent alone. The best results have been obtained by applying two or three coats of Non-Reflecting Camera Black, manufactured by the Roxalin Flexible Lacquer Company, 105-9 Seventh Avenue, Long Island City, and then smoking with burning camphor.

Bulbs and Sockets

For ordinary work, the sphere is illuminated with two 21 C.P. single contact 6-8 volt automobile headlight bulbs, which should be operated at about seven volts. The instrument is equipped with four sockets, the other two being equipped with similar bulbs of 32-candle power. The

latter are used only in making color measurements. If all four were to be used continuously, it would probably be necessary to provide air circulation for cooling.

Spring contact sockets are not satisfactory because of the variable resistance at the contact. The instrument was originally equipped with these, but they caused so much trouble that the spring device was removed, a set screw installed to give good ground contact with the base and the wire lead soldered fast to the center contact on the bulb.

Current Supply

Of all the factors contributing to the limit of reproducibility of observations on this instrument, perhaps the most difficult to regulate is the current supply. With a bulb operating just under seven volts, a variation of .005 volts will change the brightness of the filament, and hence the apparent reflectance of a sample, about .002. For this reason, larger changes in the voltage between the observations of the standard and the sample must be eliminated and even closer regulation is highly desirable. A survey of commercial voltage regulators indicated clearly that such precision could hardly be hoped for by this means. This situation indicates the use of accumulators in one way or another. Storage batteries are quite free from rapid, irregular variations in voltage, although they do show a gradual decrease during discharge. This opacimeter was operated satisfactorily for about a year directly from storage batteries. For this purpose, two 90-ampere hour 6-volt batteries were connected in parallel, and these were connected in series to a third, rated at 80-ampere hours, the three cells of which were connected in parallel. This arrangement gave an 8-volt 180-ampere-hour battery which was reasonably satisfactory, although the voltage drift made rather frequent resettings necessary. Eventually, a 5-ampere charger was installed and regulated to charge slightly less current than the bulbs draw. The battery floated across the charger forms an excellent voltage regulator, although line voltage variations do cause appreciable fluctuations in the instrument. The possible precision is greater with the batteries alone, but the actual precision is probably greater with the charger in routine work, since the frequency of resetting is less due to decreased drift. A second instrument has given satisfactory performance on a battery floated across a 110-volt direct current power line through a suitable resistance.

The rheostat in series with the lamps must give a continuous voltage variation and nothing is more satisfactory than a large Fahnestock clip with a flexible lead, sliding on a straight Nichrome wire. A two-foot piece of No. 10 Nichrome V mounted between posts with another two-foot length in series, conveniently coiled, that can be shorted out with a switch, gives about the right capacity.

If the current is controlled with battery knife switches, they should be suspected at once if the instrument becomes unstable, since they frequently develop resistance in their several contact points. They can be remedied by soldering all stationary contacts, soldering a flexible jumper across the joint, and installing a tiny set screw across the slot to maintain a firm wiping contact. In general, all connections should be soldered wherever possible, since otherwise, small variable resistances are likely to develop which are extremely troublesome and difficult to locate.

The Light-Sensitive Cell

There are a number of light-sensitive cells on the market of the barrier-layer type, any of which might be satisfactory. Only Model 594, Photronic Cell manufactured by The Weston Electrical Instrument Corporation has been used on this opacimeter, and it has been very satisfactory. This cell has an initial fatigue that makes it necessary to turn on the lamps 5 or 10 minutes before the instrument is to be used, after which it is quite stable. The cell is also relatively more sensitive to the red end of the spectrum than the human eye, and so requires a correction filter.

Light Filters

The correction filter, by removing some of the red light, corrects the cell so that it responds to the various colors to the same relative degree as the human eye. The filter cell itself, Fig. 3, is a hard rubber tube which fits into the lower part of the opacimeter above the Photronic cell. It is fitted with glass ends which are one inch apart on the inside. Sealing wax has been used to seal the glass into the tube, but it occasionally develops leaks. This difficulty can be avoided by making brass rings which screw into the ends and press the glass plates against thin soft rubber gaskets. A glass tube sealed into the side is used for filling. The solution which is used in the cell is made as follows:

Solution No. 1 — $CuSO_4 \cdot 5H_2O$ solution saturated at room temperature.

Solution No. 2 — 5 grams $K_2Cr_2O_7$ in 500 cc. water.

These are stock solutions which are diluted for use as follows:

Solution A — 15 cc. Solution No. 1 + 85 cc. water.
Solution B — 10 cc. Solution No. 2 + 90 cc. water.

The filter cell is filled with a 50-50 mixture of Solutions A and B.

Weston also manufactures a Photronic cell with a built-in correction filter which is probably satisfactory, and would obviate the necessity of using a liquid filter which has its objectionable features.

Provided the meter which is connected to the cell is of the proper range the fine adjustment to bring the deflection to some standard value with a standard white in position is made with the battery rheostat. It is best, however, to keep the voltage on the lamps between 6.5 and 7.0, since too low a voltage gives light too poor in blue and a higher voltage shortens the life of the lamps. Rough adjustments can be made by placing shunts across the meter or by placing neutral filters above the Photronic cell. The former method is convenient, but has the objection that changing the shunt causes undesirable and sometimes serious changes in the period of the meter. Neutral filters are convenient to use and simple to make.

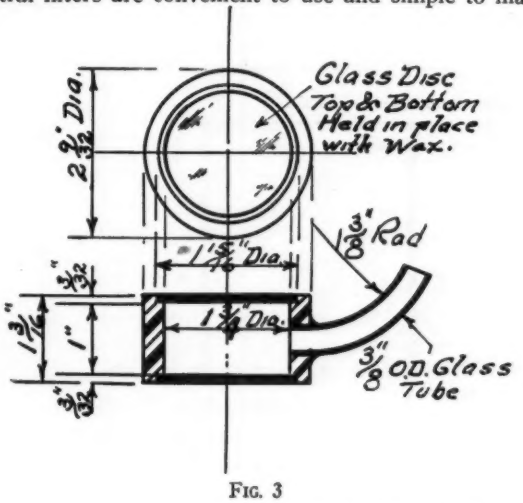

Fig. 3

They are readily constructed from screen wire by choosing a piece which has a lower transmission than desired and dipping it in acid until enough is dissolved off to give the correct transmission. A series can be made this way in a few minutes. It is convenient to have several, since the lamps change in brightness as they age, thus necessitating higher transmission filters if the voltage is to be kept within reasonable limits.

The instrument as described measures the reflectance to light from a tungsten lamp. If reflectance to daylight is desired, a daylight filter can be used. Ordinarily this may not be necessary, but samples differing considerably in color tone may give misleading results with the yellow, unfiltered, light.

The Microameter

The chief requirements for the meter which measures the current from the Photronic cell are low internal resistance and correct range. The Photronic cell generates a current whose strength is directly proportional to the intensity of the illumination on the cell, but the voltage response is not linear. For this reason, the resistance of the external circuit must be small compared to the internal resistance of the cell. The (*2*) maximum allowable resistance depends upon the precision required, and detailed information could probably be obtained from the manufacturer of the cell. If the external circuit has a resistance of less than 100 ohms, however, it is well on the safe side.

The current generated by the cell in an instrument constructed according to the specifications in this paper is about six microamperes, using two 21 c.p. bulbs burning at seven volts, using the liquid correction filter but no neutral filter, and with a standard white material over the opening. The cell is connected to a galvanometer which gives a 500 mm. deflection with 1.9 microamperes with the scale one meter distant. The galvanometer has an internal resistance of 81 ohms, which is lowered slightly by the damping shunt. Neutral filters are used to decrease the cell current to the range of the galvanometer. It is of great convenience to have the maximum output of the cell considerably larger than the range of the galvanometer, since it is no trouble to reduce the current with neutral light filters, and it allows for the decreased illumination and current available when using a daylight filter or smaller aperatures. If still larger currents are desired to operate a portable microameter, they could probably be obtained by bringing the aperature in the tube closer to the aperature in the sphere or by increasing the number of lamp bulbs.

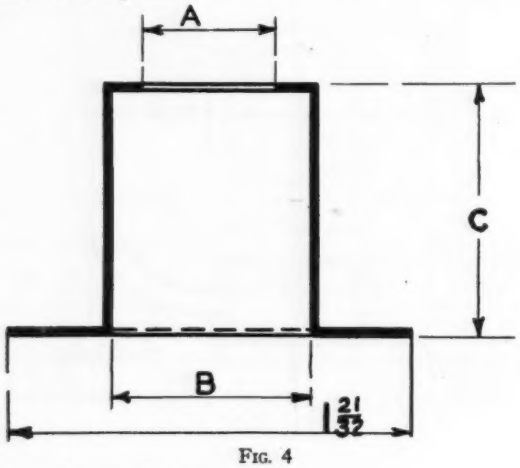

Fig. 4

Special Aperatures

The two-inch aperature is of obvious advantage in regular work, but smaller openings are necessary when the size of the sample is limited. Additional aperatures can be made by drilling holes of the desired size in brass plates 4 inches square and 3/32 inches thick. The holes should be tapered so that the diameter on the bottom is at least 1/8 inch larger than on top. The plate is fitted with pins which enter the 3/32-inch holes shown in 5, Fig. 1.

A separate collimating aperature is necessary for each viewing aperature and the smaller ones should be raised in order to secure sufficient light for the cell. The drawing in Fig. 4 shows the detail for these aperatures. For a 1-inch viewing aperature, A = 9/16 inch, B = 3/4 inch, C = 1-1/32 inch. For a 3/4-inch viewing aperature, A = 7/16 inch, B = 21/36 inch, C = 1-5/16 inch. They are finished white on the outside and black on the inside.

Reflectance Standards

It appears to be quite certain that the best primary reflectance standard available at the present time is a fumed magnesium oxide surface (*3*). This surface is so fragile and time consuming to reproduce, however, that its routine use as a working standard is quite out of the question. Magnesium carbonate has been used rather widely as a reflectance standard, and, provided the proper precautions are taken, it is quite satisfactory. The objections which have been raised to this material would appear to be inapplicable to its use as a secondary standard. It has the advantage of being fairly strong mechanically, and very inexpensive. The commercial material is remarkably uniform and the reflectance is usually between .97 and .98. Magnesium carbonate seems to be very stable in storage but it does sometimes change in reflectance in use, due perhaps to the combined action of light and heat. A block of the material should be carefully checked against fumed MgO and preserved as a secondary standard, to be used only in checking other blocks which are used as working standards. Satisfactory magnesium carbonate is always close enough to .98 in reflectance to be regarded as exactly that so far as its use as a white backing for contrast ratio is concerned. For use as a reflectance standard, it is better to use the reflectance determined by comparison with fumed MgO. Excellent magnesium carbonate in four ounce blocks can be obtained from Keasbey & Mattison Company, Ambler, Pa.

Just as the magnesium carbonate is used both as a reflectance standard and as the white backing in determining contrast ratio, a standard black is used for the zero setting of the instrument, and the black backing for contrast ratio. Black velvet is available with a reflectance as low as .003 to .004, which approaches zero if a concave surface is lined with the material. Ordinarily, the room has a reflectance and brightness of zero to the instrument, unless a direct light is shining into the aperature, and the zero setting can be made with the aperature uncovered. Similarly, a piece of paper gives the same reading uncovered as when covered with a black object, but a concave surface covered with velvet is of assistance in holding the paper flat over the opening.

Calibration

In measuring the reflectance of a sample, the instrument is first adjusted to give some standard galvanometer deflection with a standard of known reflectance. The standard is then replaced by the sample and the new deflection observed. If the response of the instrument is linear, $R_2 = D_2R_1/D_1$, where R_2 is the reflectance of the

sample, R_1 the reflectance of the standard and D_2 and D_1 the deflections obtained with the sample and standard, respectively. This simple relationship would hold exactly if the illumination on the sample was the same as that on the standard, but this is not the case. Since the sample is illuminated by the sphere walls which in turn receive a fraction of their illumination from the light reflected back by the sample itself, the amount of light received by the sample is influenced by its own reflectance. For this reason the simple relationship shown above is inaccurate.

Hardy and Pineo (*4*) have derived the relationship,

$$\frac{I}{i} = 1 + (R\text{-}r)\left[\frac{a}{A - S\,(A - a - a) - aR} - \frac{a}{A}\right], \text{ where}$$

I = intensity of illumination on standard,
i = intensity of illumination on sample,
R = reflectance of standard,
r = reflectance of sample,
a = area of opening in sphere covered by sample,
A = total area of sphere,
S = reflectance of sphere wall, and
a = area of viewing aperature.

This relationship should be quite rigid for a true sphere with the viewing and sample aperatures at the surface of the sphere. The application of the equation to the present instrument is complicated by the presence of the tube which carries the viewing aperature. Even so it holds quite closely, if for A is substituted the area of the sphere plus the area of the viewing tube, a total of 298 square inches. The greatest uncertainty is the reflectance of the sphere wall which is difficult to measure and likely to be none too uniform.

The most reliable method of determining the corrections necessary for changes in illumination with changes in reflectance of the samples is an experimental one. Referring again to Fig. 1, it will be remembered that there are four small holes in 5 to receive the pins on the special viewing aperatures. Directly below one of these holes is drilled a similar hole in the sphere wall. Through these holes is placed a small fused quartz rod, ending flush with the inside surface of the sphere and the top surface of the plate 5, and fastened with a bit of wax. The lower end is ground to the angle of the sphere wall and is left rough so that it will receive light from various directions; the top end is polished. A Photronic cell is clamped over this tube and connected to a galvanometer or microammeter. This second light-sensitive cell receives light directly from the sphere at a point very close to the sample, thus making it possible to measure changes in the intensity of the illumination on the sample.

There are two methods by which the second cell can be used in calibrating the instrument. The first method merely takes into account the measured change in illumination, as follows:

If D_1 and D_2 = galvanometer deflections from first cell with standard and sample in position, respectively,
d_1 and d_2 = galvanometer deflection from second cell with standard and sample in position, respectively.
R_1 and R_2 = reflectance of standard and sample, respectively and
R_2' = observed (uncorrected) reflectance of sample, then

$$R_2' = \frac{D_2 R_1}{D_1}, \text{ and}$$

$$R_2 = \frac{d_1 R_2'}{d_2}$$

$R_2 - R_2'$ being the desired correction.

In the second method D_1, D_2, and d_1 are determined as before, after which the lamp voltage is adjusted to make $d_2 = d_1$, which makes the illumination on the sample the same as it had been on the standard, and the new value of D_2 is observed. R_2 and R_2' can then be calculated directly. This procedure is open to the objection that the color temperature of the lamp filaments is changed during the determination, which would cause an error if the samples were not neutral in color, but the error is not large with reasonably white and grey samples.

In order to obtain corrections at enough different points to plot a correction curve, it is necessary to have a series of 6 or 8 samples whose reflectivities cover the range of the instrument. These can be conveniently prepared by making heavy hand sheets containing various amounts of lamp black. If they are made from repulped filter paper and distilled water, their optical characteristics are quite stable. Having prepared a correction curve, a scale including these corrections can be prepared which reads directly in per cent reflectance.

Accuracy and Precision

The accuracy and precision of the instrument vary with the conditions of use and can hardly be defined in a word. The precision with which readings can be reproduced is quite high, no difficulty ordinarily being encountered in reproducing the readings on a series of samples to ±.002 if the instrument is operated with reasonable care. Errors of twice this magnitude are occasionally encountered in the routine use of the instrument when a large number of samples is being examined daily. The absolute accuracy of the instrument depends upon the precision with which the reflectance of the standard is known and the accuracy of the calibration, as well as the precision of the readings. In Table 1 are recorded

TABLE I—REFLECTANCE

Sample	NBS Dec. 27	January 19 Method I	II	Av.	May 8 Method I	II	Av.	July 25	29
I	.886	.879	.883	.881	.879	.881	.880	.875	.875
II	.752	.745	.750	.748	.744	.746	.745	.743	.744
III	.624	.617	.620	.619	.617	.620	.619	.619	.619
IV	.532	.532	.536	.534	.530	.534	.532	.532	.533
V	.515	.512	.514	.513	.510	.513	.512	.514	.513
VI	.415	.407	.412	.410	.408	.412	.410	.412	.412
VII	.298	.298	.302	.300	.297	.301	.299	.303	.304
VIII	.226	...	.228	.228	.224	.228	.226	.230	.231

the observations on a number of samples which were measured in the course of calibrating the instrument, the samples having been measured previously by the National Bureau of Standards for purposes of comparison. The Bureau of Standards certifies reflectance to ±.01 and reports three significant figures. The reflectance is reported as a fraction of the reflectance of fumed MgO and is here recalculated to absolute reflectance on the assumption that the reflectance of MgO is .970. The average of the two methods of experimentally correcting for changes in illumination with the reflectance of the sample in no case differs from the NBS result by more than .005 which is a very satisfactory check, considering the great difference in the experimental methods involved. The results on May 8 check well with the previous results, showing a slight average trend downward. The results of July 25 and 29 were obtained with a scale constructed from the data obtained on May 8. The checks obtained on the two days show the order of precision possible in a given set of samples. The changes between May 8 and July 25 very likely represent real changes in the samples, since they were used and handled a good deal in the meantime.

Acknowledgment

The author wishes to express his appreciation to D. L. Gamble of this laboratory and to Deane B. Judd of the National Bureau of Standards for valuable suggestions in the design and calibration of this opacimeter. This instrument is a modification and refinement of one made in 1932 by Mr. Gamble for measuring the optical characteristics of paint films.

Literature Cited

(1) Steele, F. A., *Paper Trade J.* 100, No. 12:37 (March 21, 1935).
(2) Romain, B. P. *Rev. Sci. Instruments* 4:83 (Feb., 1933).
(3) National Bureau of Standards *Letter Circular, LC-395* (Dec. 9, 1933).
(4) Hardy, Arthur C. and Pineo, O. W., *J. Optical Soc. Am.* 21:502 (August 1931).

The Effect of Drier Drainage Upon the Drying of Paper and Its Control*

By H. G. Cram[1]

Much has been written regarding drier drainage, various types of drainage systems and the advantages thereof.

Evidently, a great deal of the data assembled and the conclusions arrived at, have been based upon single drier set-ups, or at least without the means to control the factors involved, or the means to determine the actual results obtained under any predetermined condition.

The modern paper machine, equipped with an electric sectional drive and power inflow meters, recording temperature control of the steam in the driers, recording steam flow meters and syphons which can be adjusted radially while the machine is in operation would seem to offer a more practical means upon which to base conclusions, and leave little to be desired, from a practical standpoint, with the exception of an insight, into the action of accumulated condensate within a rotating paper machine drier.

Several paper machine driers, having glass or open ends, have been constructed, for the purpose of providing direct observation of the action of varying amounts of accumulated condensate as well as at different rates of rotation.

Observation of the action of accumulated condensate in a drier of this type is rather disappointing, in that, the action is exactly that which any intelligent observer would have anticipated.

With the rotation of the drier, that part of the condensate in close proximity or actual contact with the drier shell is moved along in the direction of rotation and carried upward a distance relative to the speed of rotation, to the point on the periphery of the drier shell where the angle of elevation has increased as to allow gravity to overcome adhesion of the condensate to the shell, and the momentum which it has received in its passage through the bottom horizontal section of the drier. At this point the condensate falls or slides back over the top of the pool in the bottom of the drier, where, though a rotating movement like that of an internal gear, it will again be carried upward completing the cycle.

For all practical purposes, the trouble and expense of preparing special drier set-ups of this kind, could have as well have not been undertaken, had we been willing to accept a conclusion as indicated by common sense and an observation of the action of water and various materials in rotating cylinders, such as, cement mixers, rotating drum barkers, etc.

Most observers agree, as to the action, but there is some disagreement, as to the exact speed of rotation, wherein, the condensate will be carried completely around the inside periphery of the drier forming a film thereon of material thickness.

There is very strong evidence, that this action will not take place in actual operation on a five foot drier below 1385 f.p.m. which automatically eliminates the possibility of this action in a vast majority of the machines now in operation.

Influence of Drier Drainage Efficiency

In connection with a reasonably fair ventilating system, the efficiency of drier drainage will materially effect:

1. Drying capacity.
2. Power requirement for driving the drier section particularly noticeable on machines operating above 600 f.p.m.).
3. Steam economy.
4. Rate of heat transfer.
5. Uniform drying across the sheet.
6. The proper regulation of the steam flow to the driers, and thereby, the ultimate moisture content in the sheet.

The drying capacity of the driers is effected materially by an accumulation of condensate in the driers, at any point near the wet end, where the weight, moisture content and speed of the sheet effects a rate of condensation in the drier, approximating the maximum drying capacity of the drier at the pressure.

Under the above conditions at the wet-end of the section, the rate of drying will be practically relative, to the area of metal, not covered by condensate directly exposed to the steam in the dryer.

The mere fact that the drier is rotating does not alter the fact that at any particular moment, the area of metal surface in direct contact with the steam is that not covered by condensate, such condensate serving as a blanket between the steam and the shell, such blanket having a conductivity of approximately one to eighty-seven as compared to the cast iron of the drier shell.

When the drying rate of the first wet-end driers is decreased by an accumulation of condensate or other reason, some of the burden of drying the sheet is transferred to driers further along in the section, and if the accumulation of condensate continues to increase, the burden of drying will be transferred still further toward the dry-end up to the last drier, at which time the proper drying of the sheet will entirely break down.

Experience at Bucksport Mill

As a practical example of the effect of accumulated condensate upon the drying capacity of the driers, attention is directed to the two 231-inch machines at the modern plant of the Maine Seaboard Paper Company at Bucksport, Maine.

These machines were started up in December 1930 at 800 f.p.m. The drier sections were equipped with one of the popular drainage systems, which was considered the best on the market at the time.

Upon increasing the speed to 850 f.p.m. the steam pressure in the dryers was abnormally high in order to dry the sheet, with a power load of 285 hp. to drive the section, which endangered the operation of the motor-generator set driving the machine. A check-up of the condensate in the driers over a week-end shut-down, indicated an average of a little over three inches over the section. This condition was practically the same on both machines.

An installation of the "Cram syphon inlets" on these machines reduced the condensate to 1¼ inches, the power

* Presented at the meeting of the Lake States Section of the Technical Association of the Pulp and Paper Industry, Appleton, Wis., Feb. 12, 1935.

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consumption of the section to 105 hp. and the pressure from 16 to 7 pounds. Those machines have since been speeded up to 1385 f.p.m. without reaching the maximum drying capacity, and with a power increase for the section relative only to such increase in speed.

An almost identical installation was made on four machines of practically the same size in a Canadian Mill, where a check-up of the condensate in the driers averaged 2¾ inches, being reduced with the syphon inlets to 1⅛ inches with a power decrease from 275 hp. at 1000 f.p.m. to 129 hp. at 1200 f.p.m. and with a material pressure decrease.

Mention of the above results, is to point out the effect of accumulated condensate, as practically demonstrated in actual operation upon six very large high speed machines, all equipped with the means for an accurate determination of results.

Power Required

While the actual effect upon power of accumulated condensate was included in the above discussion on capacity, it may be well to mention, however, that extensive tests on one of these machines for power with various amounts of water in the driers indicated: (48 5-foot drier section)

60 hp. with no water at 1000 f.p.m.
110 hp. with 1¼ inch at 1000 f.p.m.
285 hp. with 3 inches at 1000 f.p.m.
350 hp. with 5 inches at 1000 f.p.m.
365 hp. with 6 inches at 1000 f.p.m.
370 hp. with 7 inches at 1000 f.p.m.

It was concluded that above this level the power consumption would not increase.

It has since been reported, that at another mill, these power tests have been extended to higher levels, which indicated, that upon increasing the level above 7 inches that the power began to decrease until with 30 inches of water or half full, the power decreased to nearly the point indicated with no water in the driers, the difference being accounted for by the added weight of the driers in the bearings.

The explanation seems to be that beyond 7 inches the shell emerges from the pool of accumulated condensate at the more vertical section of the periphery of the drier shell and that it becomes increasingly more difficult for adhesion and the momentum of the section of condensate to carry-up with the shell, where at half full the periphery of the shell would be vertical, there is very little carry-up and therefore very little power consumed by this action.

Steam Economy

If the driers are free of accumulated condensate, a constant circulation of steam through the driers is maintained, and the flashed steam from the condensate from the dry-end section is utilized in the condensing driers allowing the condensate to be removed at a temperature below 212 deg. "F", practically the maximum steam economy will prevail, in so far, as can be effected by a drainage system.

Rate of Heat Transfer

In order to establish a basis of fact, as to the relationship of condensate in the drier, to the rate of heat transfer to the sheet, more than merely the temperature of the drier shell must be considered.

The rate of steam condensation in a drier is the only true indication of the rate of drying or heat transfer. To accurately determine this point, it is necessary to establish a constant temperature of the steam in the drier, and to know positively the rate of steam delivered to the dryer when operating with various amounts of condensate, and to have the means for fixing the amount (predetermined) in the drier. It is also necessary that the drier be operating at its capacity at the fixed pressure and temperature.

The practical results indicated on the six machines mentioned above would seem to answer this question of "effect of accumulated condensate upon rate of drying."

Uniform drying across the sheet is largely dependent upon the condition of the sheet as entering the dryers. Some corrections are usually made at the slice and presses in order to deliver a uniform sheet to the driers.

It is more difficult to dry the sheet at the center, especially with wide machines, than at the edges, even with good drier drainage and ventilation.

It is evident that with poor drier drainage, poor ventilation or both, that uniform drying across the sheet is impossible without extraordinary corrections at the presses, which usually reduces the efficiency of operation at the wet-end.

Effect of Drier Drainage Upon the Regulation of the Steam Flow to the Driers and the Moisture Content in the Sheet

Under the best of drier drainage conditions, it is apparent that any regulator is at a serious disadvantage on account of the time-lag between the action of the regulator and the resultant effect of the heat on the sheet. This is of course, the time required for the delivery of the steam and the transfer of its heat through the shell of the drier.

If there is an accumulation of condensate in the drier, it will not only be necessary to increase the temperature of the shell before effecting the sheet, but it will also be necessary to increase the temperature of the condensate as well, thereby increasing the time-lag still further and very materially.

The result is, that the regulator must increase the limit of its hunting action, which in turn, has a very considerable tendency to effect dry and moist sections along the travel of the sheet.

The Requirements of a Condensate Section

The requirements of a condensate section include:

1. Continuous removal of condensate with as little accumulation in the drier as possible.
2. Continuous circulation of steam through the drier to prevent any accumulation of air which is continually entering in small amount with the steam.
3. Freeness from a multiplicity of individual units with adjustments, and also, elaborate piping layouts, which complicate its operation and increase maintenance cost.

There are no other requirements of importance.

The Cram System

In connection with this discussion of drier drainage, a brief description of "the Cram balanced differential drier drainage system," which was developed for the machines at the plant of The Maine Seaboard Paper Company at Bucksport, Maine and is now manufactured and sold by Rice, Barton & Fales Inc., Worcester, Mass. and by the Dominion Engineering Works Ltd. of Montreal. Fig. 1.

It has been apparent that the first step in drier drainage was to get the accumulated condensate off the dryer shell and into the syphon pipe, the line of demarkation between the inside and outside of the drier, in so far as the drainage system is concerned is right at the inlet to the syphon.

Likewise, it was obvious, that the highest rate of condensation was in the wet-end driers, decreasing in subsequent driers until at the last dry-end driers it was only one-fifth to one-tenth that of the wet-end driers.

However, it was the general practice to equip the entire machine with equal size syphon pipes, and with good reason, as, friction loss increases very rapidly in inverse ratio with the diameter in small pipes.

Therefore, it seemed that a syphon inlet should be designed having a restricted orifice of such area as would permit the flow of the maximum condensation in the drier at a working differential sufficient to remove the condensate from the driers continuously.

Such an inlet was designed and protected by United States and foreign patents and it is the backbone of the "Cram drainage system." Fig. 2. This syphon inlet consists of a backwall or plate located behind the orifice and which projects to very close proximity to the rotating drier shell, the purpose of which is to contact the condensate moving along with the drier shell and project it into the steam-stream which is passing through the orifice continuously and at considerable velocity. The length of the orifice is less than one-eighth inch, effecting a minimum friction loss to the passing condensate and steam.

The orifices of the syphon inlets are graduated somewhat in size throughout the section, being smaller at the dry-end.

Balanced Differential Feature

The balanced differential feature is simple of explanation:

It has been obvious, that if a syphon could be designed

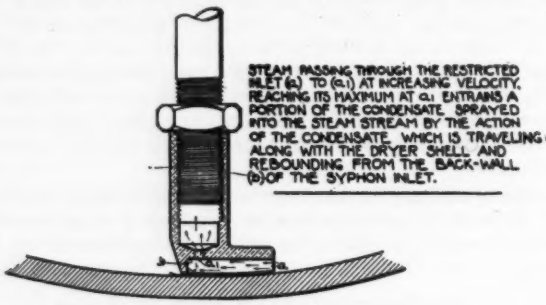
STEAM PASSING THROUGH THE RESTRICTED INLET (a) TO (a.1) AT INCREASING VELOCITY, REACHING ITS MAXIMUM AT a. ENTRAINS A PORTION OF THE CONDENSATE SPRAYED INTO THE STEAM STREAM BY THE ACTION OF THE CONDENSATE WHICH IS TRAVELING ALONG WITH THE DRYER SHELL AND REBOUNDING FROM THE BACK-WALL (b) OF THE SYPHON INLET.

FIG. 2

which would expand and contract in inside area, in relation to the rate of condensation in the dryer, allowing only of the continuous passage of the condensate together with a very small percentage of steam for air removal, that it would be the ideal system for dryer drainage.

While such an inlet is apparently incapable of design, there is an alternative, in that, the differential in pressure across the driers can be controlled so as to permit of the balancing of this differential in relation to the rate of condensation in the driers.

The drainage system is divided into two sections, a dry-

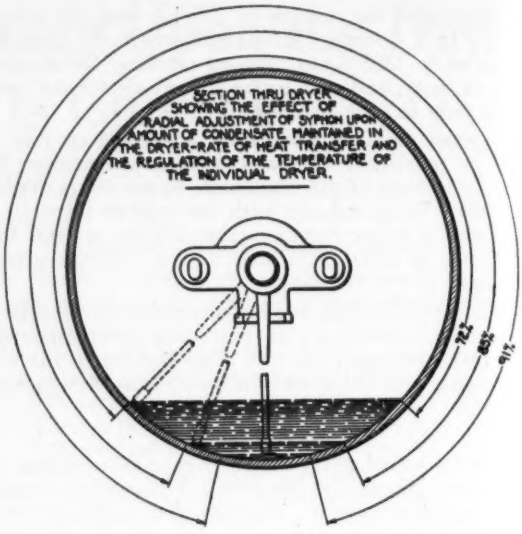
SECTION THRU DRYER SHOWING THE EFFECT OF RADIAL ADJUSTMENT OF SYPHON UPON AMOUNT OF CONDENSATE MAINTAINED IN THE DRYER-RATE OF HEAT TRANSFER AND THE REGULATION OF THE TEMPERATURE OF THE INDIVIDUAL DRYER.

FIG. 3

end section to which the steam is supplied and a wet-end section of condensing driers.

As the syphon inlet is designed to pass only the condensate and a very small amount of surplus steam, only one condensing dryer is required for 24 driers in the dry-end section.

Under these conditions a steam separating tank is not necessary, only a pipe-leg with liquid level control at the bottom is required for the discharge of condensate to the common condensate line to the pump, and the surplus and flashed steam to the condensing headers.

The discharge from the condensing dryers is to a small uni-rate condensor having a series of plates over which a small supply of cooling water is distributed in direct contact with the steam. This supply of cooling water is constant as to volume and temperature. A liquid level controller mantains a seal in the lower part of this tank, the surplus being discharged to the common condensate line to the pump.

The effect of this condensing action is to provide a balanced differential in pressure across the condensing dryers relative to the rate of condensation in the dryers, the action being, that any increase in the rate of condensation in the dryer will tend to close off the orifice to the flow of surplus steam to the uni-rate condensor, to an amount less than its constant demand, and thereby, effect

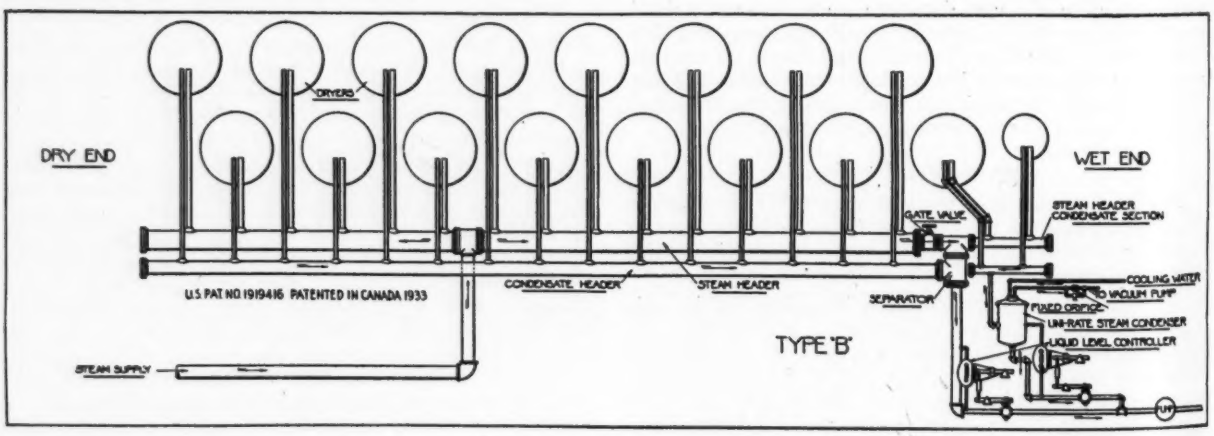

FIG. 1

a comparative reduction in the pressure in the discharge from the drier, thereby, increasing the differential in pressure across the dryer and reducing the amount of condensate therein to normal.

The driers of the dry-end section are effected likewise through the action of the condensing dryers.

The individual rate of drying control for each drier is a valuable asset to machines making a class of paper which requires a graduation of the rate of drying through the section.

By means of a special steam joint elbow, it is possible to adjust the syphon radially, and thereby maintain any required amount of condensate in the drier. Fig. 3.

As the amount of condensate retained in the drier, determines the rate of drying, it is apparent that by the radial operation of the syphon, directly controls the rate of drying of each drier.

As the syphon inlet is so-designed, as to allow of a continuous discharge of a small amount of surplus steam from the drier in all radial positions an accumulation of air in the driers is impossible.

The results of numerous installations indicate that this system fulfills all the requirements of a drainage system plus individual rate of drying control for each drier and is extremely simple, in construction and operation.

United States Patents On Paper Making

Third Quarter, 1935

Compiled by Clarence J. West, Chairman, Committee on Abstracts and Bibliography, TAPPI

The following list of patents has been compiled from the current numbers of the Official Gazette of the United States Patent Office. Since only one claim, in general, is published in the Official Gazette, it is not claimed that this list is complete.

Copies of any of these patents may be obtained from the Patent Office, Washington, D. C., by sending ten cents ($0.10) for each patent desired. At least the number of the patent and the patentee should be given. Personal checks and stamps are not accepted in payment for patents.

July 2, 1935

2,006,392. Material and article containing fibre and method of making the same. Harold W. Greider and Marion F. Smith, assignors to The Philip Carey Manufacturing Company, Lockland, Ohio. Filed April 10, 1933. 50 claims (Cl. 92-41). Composite sheet material of hard, semi-rigid and heat-resisting character.

2,006,499. Paper metering, cutting and reeling. Charles A. Fourness and Charles M. Pearsons, assignors to Paper Patents Company Neenah, Wis. Filed May 22, 1933. 9 claims. (Cl. 242-56).

2,006,519. Suction roll and method of drilling same. Albert H. Standley, assignor to Downingtown Manufacturing Company, Downingtown, Pa. Filed April 3, 1934. 3 claims. (Cl. 92-53). Suction roll shell adapted for rotation in a given direction and having suction openings those portions of openings which extend through the periphery of the shell being axially inclined radially forwardly in the direction of rotation.

2,006,528. Manufacture of wall board. Curry Ora Walper, Hamilton, Ontario, Canada. Filed Aug. 5, 1933. 4 claims. (Cl. 154-2). Wall board consisting of a gypsum core and enclosing paper liners.

2,006,548. Manufacture of containers. William W. Halle, assignor to Seeley Tube and Box Company, Newark, N. J. Filed July 6, 1932. 3 claims. (Cl. 93-55).

2,006,559. Preparation of fibrous material. Elis Olsson, West Point, Va. Filed Nov. 6, 1933. 5 claims. (Cl. 92-6). A digester with high-pressure steam, pulp-receiving chamber with grinder mounted therein, etc.

2,006,626. Felted fibrous product and method of making same. Jerome J. Blum, assignor to Arveyware Corporation, Olean, N. Y. Filed April 24, 1933. 2 claims. (Cl. 92-55). Preformed, felted, relatively rigid fibrous structure having curvilinear surfaces, one surface of which is a linty fabric sheet.

2,006,664. Apparatus for carrying and moving paper rolls. Henry A. Wise Wood, assignor to Wood Newspaper Machinery Corporation, New York, N. Y. Filed Sept. 17, 1930. 5 claims. (Cl. 242-58).

2,006,689. Container and method of making the same. Henry T. Scott, assignor to The American Paper Bottle Company, Toledo, Ohio. Filed Aug. 29, 1933. 11 claims. (Cl. 93-6). Method of fabricating a sealed container.

2,006,831. Globe and method of and means for making the same. Jesse B. Hawley, Geneva, Ill. Filed June 10, 1932. 7 claims. (Cl. 92-56).

2,006,943. Slitting machine. Clarence E. Coleman and Lee B. Molyneux, assignors to DuPont Cellophane Company, Inc., New York, N. Y. Filed April 1, 1932. 33 claims. (Cl. 164-65).

2,007,024. Chemical pulping process. George A. Richter, assignor to Brown Company, Berlin, N. H. Filed Dec. 29, 1933. 8 claims. (Cl. 92-9). Chips are impregnated with uncausticized smelt solution and pulped in causticized smelt solution.

2,007,047. Decorative paper. John H. Gibbs, assignor to Dennison Manufacturing Company, Framingham, Mass. Filed March 1, 1932. 10 claims. (Cl. 154-33). Crepe paper is coated on one side with a light-reflecting material, and is then softened and calendered.

July 9, 1935

R19,637. Shingle. Norman P. Harshberger, assignor to Bakelite Building Products Co., Inc., Wilmington, Del. Original No. 1,6[illegible]100, dated Jan. 4, 1927. Application for reissue Jan. 7, 1935. 12 claims (Cl. 108-7).

2,007,341. Process of treating cellulose fibres. Fredrich Olsen and Frederick R. Seavey, assignors to The Cellulose Research Corporation, Dover, N. J. Filed Feb. 13, 1929. 7 claims. (Cl. 92-1). Filed but not issued.

2,007,348. Process and apparatus for delignification. Walter G. Scharmann and Frederich Olsen, assignors to The Cellulose Research Corporation, Dover, N. J. Filed Oct. 23, 1929. 21 claims. (Cl. 92-9). Fibers passed through digesters in one direction and liquors passed through under high temperature and pressure in the opposite direction.

2,007,351. Roll grinding machine. Amos P. Steiner and Harold E. Balsiger, assignors to Landis Tool Company, Waynesboro, Pa. Filed Aug. 29, 1929. 4 claims. (Cl. 51-49).

2,007,404. Decalcomania paper. John MacLaurin, Ware, Mass. Filed Feb. 11 1933. 2 claims. (Cl. 41-33).

2,007,411. Method of coloring sheet asbestos-cement composition material and the like. Karel Sticha, Hradec Kralove, Czecho-Slovakia. Filed June 20, 1934. 3 claims. (Cl. 92-40).

2,007,418. Doctor. Saeming Eriksen, assignor to Frederik Wm. Vickery, London, England. Filed March 23, 1928. 9 claims. (Cl. 92-74).

2,007,470. Paper manufacture. Arthur R. Harvey, assignor to The Gardner-Richardson Company, Middletown, Ohio. Filed April 27 1932. 12 claims. (Cl. 92-41). Paper board.

2,007,544. Production of perforated webs. Otto C. F. Meisel, assignor to Meisel Press Manufacturing Company, Boston, Mass. Filed May 4, 1934. 4 claims. (Cl. 101-226). Paper web presenting a series of longitudinal zones each divided into sections by lines of weakening.

2,007,551. Method of and apparatus for making paper board. John D. Tompkins, Valatie, N. Y. Filed Jan. 31, 1933. 11 claims. (Cl. 92-38).

2,007,585. Building material and method of making the same. Teikichi Satow, Tokyo, Japan. Filed Aug. 22, 1930. 5 claims. (Cl. 106-33). Board, tile or floor covering composed of comminuated hog fuel and a vegetabe adhesive.

2,007,630. Decalcomania paper. Henry Atwater, assignor to McLaurin-Jones Co., Brookfield, Mass. Filed Feb. 11, 1933. 8 claims. (Cl. 41-33).

2,007,710. Shingle. Dozier Finley, assignor to The Paraffine Companies, Inc., San Francisco, Cal. Filed April 25, 1934. 3 claims (Cl. 108-7).

2,007,783. Stencil. Robert O. Williams, Cleveland, Ohio. Filed Sept. 26, 1933. 5 claims. (Cl. 41-38.6). Stencil coating.

2,007,833. Machine for drying sheet material. Charles B. Norris, assignor to Reconstruction Finance Corporation. Filed April 21, 1933. 14 claims. (Cl. 34-12).

July 16, 1935

R19,643. Copperized paper. William R. Barber, Albert G. Natwick and Maurice W. Phelps, assignors to Crown Williamette Paper Company, San Francisco, Cal. Original No. 1,947,452, dated Feb. 20, 1934. Application for reissue Aug. 15, 1934. 3 claims. (Cl. 92-21).

2,008,141. Insulating or "fish" paper and method of making. James L. McClellan, assignor to Hollingsworth and Vose Company, Boston, Mass. Filed March 24, 1931. 15 claims. (Cl. 154-34). Paper containing true hemp fibres is subjected to a parchmentizing treatment.

2,008,142. Paper and method of making. James L. McClellan, assignor to Hollingsworth and Vose Company, Boston, Mass. Filed May 16, 1932. 12 claims. (Cl. 92-13). Paper pulp, containing cotton, hemp, kraft or sulfate fibers, is mercerized at 180° F.

2,008,181. Art of producing multilateral stretchability in paper webs or the like. William C. Kemp, assignor to The Paper Service Company, Lockland, Ohio. Filed July 29, 1932. 12 claims. (Cl. 154-30). Method of creping paper.

2,008,182. Art of producing multilateral stretchability in paper webs or the like. William C. Kemp, assignor to The Paper Service Company, Lockland, Ohio. Filed April 12, 1934. 13 claims. (Cl. 154-33). Method of crinkling paper.

2,008,218. Moisture-proofing. Francis P. McColl, Ridgewood, N. J. Filed Nov. 7, 1933. 9 claims. (Cl. 93-36). Method of forming the wall of a container.

2,008,228. Plug structure for jordan engines. Christian C. Riehm, Methuen, Mass. Filed Jan. 7, 1935. 23 claims. (Cl. 92-27).

2,008,236. Machine for manufacturing window envelopes. Alfred Winkler and Max Dünnebier. Neuwied-on-the-Rhine, Germany. Filed July 28, 1932. 21 claims. (Cl. 93-62).

2,008,317. Artificial reed, rattan and the like. Leroy Q. Presby, assignor to American Stay Company, Boston, Mass. Filed Feb. 3, 1932. 12 claims. (Cl. 93-84). A tube of paper is compressed to form a solid reed, after coating with an adhesive.

2,008,317. Wood slicing machine. Frederick J. Voigt, Eugene Oreg. Filed Sept. 14, 1934. 10 claims. (Cl. 144-162).

2,008,318. Guide roll. John A. Ziegler, Camas, Wash. Filed Dec. 1, 1934. 12 claims. (Cl. 74-241). Guide-roll for paper making machine.

2,008,432. Manufacture of vulcanized fibre. John K. Anthony, assignor to Horace B. Fay, Cleveland, Ohio. Filed Aug. 29, 1931. 5. claims. (Cl. 8-20). Fibrous cellulose is subjected to a hydrating treatment and eliminating internal mechanical cockling stresses by amorphizing stress-occasioning fibrous structure without destroying the gross contour and setting the mass.

2,008,434. Drier cylinder. Paul M. F. Buettner, Oakland, Cal. Filed July 5, 1932. 16 claims. (Cl. 34-4).

2,008,603. Apparatus for refining pulp and the like. Carl Busch Thorne, Hawkesbury, Ontario. Filed Sept. 21, 1931. 4 claims. (Cl. 8-2). Bleaching low density pulp.

2,008,635. Process of and apparatus for producing pulp. William Brubacher, Kapuskasing,

Ontario, Canada. Filed May 5, 1932. 18 claims. (Cl. 92-7). Fibrous material in a digester is raised to the pulping temperature cooking liquor introduced and the mixture passed through the cooking zone of the digester.

2,008,645. Paper cutting and trimming machine and the like. Emil L. Mueller, Rutherford, N. J. Filed Sept. 22, 1931. 4 claims. (Cl. 164-58).

JULY 23, 1935

2,008,718. Structural material and method of making the same. Edward M. Jenkins, assignor to Johns-Manville Corporation, New York, N. Y. Filed July 23, 1932. 17 claims. (Cl. 154-2).

2,008,717. Process and machine for the manufacture of paper tubes. René Jarrier, assignor to Bartlett Arkell, New York, N. Y. Filed Feb. 20, 1930. 22 claims. (Cl. 93-81).

2,008,839. Method and means for cleaning sulphite cellulose preheaters. Torsten Samson, Stockholm, Sweden. Filed Sept. 11, 1933. 7 claims. (Cl. 257-1). A liquid capable of dissolving the incrustations is circulated through the preheaters.

2,008,892. Method of manufacture of pulp. Arne Johan Arthur Asplund, assignor to Aktiebolaget Defibrator, Stockholm, Sweden. Filed Sept. 19, 1934. 8 claims. (Cl. 92-20). The material is heated within a temperature range between 212° F and a point at which the ligneous substance of the middle lamella of the material is markedly softened, in an inert gas and mechanically defibrated.

2,008,974. Method for making corrugated board. David Weber, assignor to David Weber and Company, Philadelphia, Pa. Filed Dec. 2, 1933. 14 claims. (Cl. 154-33). Double-walled corrugated boards.

2,008,984. Wrapping material. William O. Kenyon and Russell H. Van Dyke, assignors to Eastman Kodak Company, Rochester, N. Y. Filed June 15, 1932. 20 claims. (Cl. 91-68). Wrapping sheet of cellulose ester material.

2,009,184. Paper making. William P. McCorkindale, assignor of one-half to The McCorkindale Company, Holyoke, Mass., and one-half to American Writing Paper Company, Inc., Holyoke, Mass. Filed April 4, 1934. 13 claims. (Cl. 92-39). Successive sheets of paper are formed on a foraminous surface, transferred to successive carriers by suction, the carrier being heated for drying the sheets.

2,009,185. Water-marking. William P. McCorkindale, assignor of one-half to The McCorkindale Company, Holyoke, Mass., and one-half to American Writing Paper Company Inc., Holyoke, Mass. Filed April 4, 1934. 8 claims. (Cl. 92-48). The method consist in depositing paper-making material on a non-rounded foraminous surface by suction, the surface having a depression in the form of a water-mark being produced whereby the water-marked portion is of greater density than the main body thereof.

2,009,288. Bag-making machine. August F. Beckmann, assignor to Benj. C. Betner Company, Devon, Pa. Filed June 23, 1932. 1 claim. (Cl. 164-99).

JULY 30, 1935

2,009,416. Bag forming and filling machine. Theodore Schilder, assignor to Fred Goat Co., Inc., New York, N. Y. Filed April 11, 1933. 26 claims. (Cl. 93-3).

2,009,464. Paper towel. Courtney P. Winter, Chambersburg, Pa. Filed Feb. 6, 1935. 2 claims. (Cl. 206-57).

2,009,465. Impregnated paper article. Watson H. Woodford, assignor to Remington Arms Company, Inc., Bridgeport, Conn. Filed Feb. 14 1933. 15 claims. (Cl. 93-94). In the manufacture of shot shell tubes, the walls are impregnated with a heat absorbent.

2,009,488. Wax emulsion. Arthur H. French, assignor to A. E. Staley Manufacturing Company, Decatur, Ill. Filed July 30, 1932. 2 claims. (Cl. 134-22). An emulsion of corn oil soap, starch and wax for sizing paper.

2,009,617. Building material. Norman P. Harshberger, assignor to Bakelite Building Products Co., Inc., New York, N. Y. Filed June 11, 1930. 6 claims. (Cl. 108-7). A flexible roofing material.

2,009,619. Thermal insulating material and method of making the same. Kenneth W. Huffine, assignor to Johns-Manville Corporation, New York, N. Y. Filed April 7, 1932. 15 claims. (Cl. 154-28).

2,009,631. Apparatus for coating paper. William J. Montgomery, assignor to The Champion Coated Paper Company, Hamilton, Ohio. Filed May 28, 1932. 5 claims. (Cl. 91-47). Drive for applicator and doctor rolls.

2,009,848. Method of manufacturing suction rolls and assembly for use therein. George R. Keltie, assignor to American Wringer Company, Inc., Woonsocket, R. I. Filed April 27, 1933. 12 claims. (Cl. 18-59). Method of covering hollow suction rolls.

2,009,857. Machine for making envelopes and the like. Adolph Potdevin, assignor to Potdevin Machine Company, New York, N. Y. Filed Sept. 30, 1932. 7 claims. (Cl. 93-18).

2,009,944. Process of treating bast fiber. Leo Nordmann, Berlin, Germany. Filed Sept. 14, 1932. 5 claims. (Cl. 92-10). Use of ionized air.

2,009,976. Jordan engine. Grant D. Smith, assignor to Taylor-Wharton Iron and Steel Company, High Bridge, N. J. Filed Sept. 5, 1934. 3 claims. (Cl. 92-27). Plug for jordan engines.

2,009,985. Jordan engine. Alfred L. Bray, assigner to Taylor-Wharton Iron and Steel Company, High Bridge, N. J. Filed Sept. 5, 1934. 1 claim. (Cl. 92-27). Plug for jordan engine.

AUGUST 6, 1935

2,010,015. Fire resisting article and method of making same. John Fletcher, assignor to Plastergon Wall Board Company, Buffalo, N. Y. Filed Oct. 10, 1933. 4 claims. (Cl. 91-68). The board is impregnated with silicate of soda and coated with a soluble chlorinated diphenyl.

2,010,077. Production of solutions of alkali metal salts of sulphurous acid. Gustaf Haglund, assignor to Patentaktiebolaget Grondal-Ramen, Stockholm, Sweden. Filed Jan. 12, 1933. 10 claims. (Cl. 23-129).

2,010,150. Paper machine. James W. Hemphill, assignor to Johns-Manville Corporation, New York, N. Y. Filed April 5, 1934. 5 claims. (Cl. 92-51). A fourdrinier wire with a plate element disposed below a portion thereof.

2,010,152. Insulated conductor and method of coating the same. Anthony P. Hinsky, assigner to Pyro Products Corporation, Brooklyn, N. Y. Filed Feb. 24, 1933. 3 claims. (Cl. 91-70).

2,010,302. Seam for papermaker's drier felt. Thomas Hindle and Sam Lord, Blackburn, England. Filed April 25, 1934. 5 claims. (Cl. 24-33).

2,010,308. Apparatus for making ply-board. Arthur G. Leonard, Jr., assignor to Orenda Corporation, Chicago, Ill. Filed Aug. 13, 1934. 16 claims. (Cl. 92-67). Web cutting mechanism.

2,010,442. Web cutting mechanism. William E. Sharkey and Harry Peters, assignors to The Raymond Bag Company, Middletown, Ohio. Filed Oct. 31, 1930. 13 claims. (Cl. 164-68).

2,010,635. Method of manufacturing wetproof cellulose products. Julius Kantotowicz, Breslau, Germany. Filed Sept. 4, 1931. 8 claims. (Cl. 92-3). Formaldehyde and nitric acid are used.

AUGUST 13, 1935

2,010,871. Fibrous composition and method of producing the same. Evelyn William Madge and Francis James Payne, assignors to Dunlop Rubber Company, Limited, London, England. Filed Jan. 11, 1934. 2 claims. (Cl. 154-2). Method of using rubber.

2,010,917. Apparatus for continuously drying fiber boards. Francis I. DuPont, assigner to Mineralite Corporation, Philadelphia, Pa. Filed Nov. 3, 1931. 1 claim. (Cl. 34-12).

2,011,037. Timber support for rossing machines and the like. Jesse C. Cook, assignor to American Creosoting Company, Louisville, Ky. Filed June 25, 1934. 8 claims. (Cl. 144-208).

2,011,098. Method of and apparatus for treating shingle elements. Jules L. Wettlaufer, assignor to The Patent and Licensing Corporation, Boston, Mass. Filed March 7, 1932. 11 claims. (Cl. 91-18). Means of coating shingles.

2,011,149. Decorated and saturated sheet and process of preparing the same. Ralph G. Jackson, Woodbury, N. J. Filed Sept. 29, 1931. 11 claims. (Cl. 91-67.9).

2,011,150. Decorated and saturated sheet and process of preparing the same. Ralph G. Jackson, Woodbury, N. J., and Julian T. Baldwin, West Chester, Pa. Filed June 19, 1935. 6 claims. (Cl. 91-67.9).

2,011,156. Process for the manufacture of paper. Harry Huet Nelson, Paris, and Guillaume Becker, Versailles, France. Filed April 13, 1933. 2 claims. (Cl. 91-68). Waterproofing with thiosulphocarbonate and precipitating hydrocellulose by viscose of weak acidity.

2,011,182. Finishing coating and method of applying the same. Willard H. Nutting, assignor to The Paraffine Companies, Inc., San Francisco, Cal. Filed May 6, 1930. 5 claims. (Cl. 91-67.9).

2,011,183. Method and apparatus for making insulating board. David H. Patterson, Jr., San Francisco, Cal. Filed April 11, 1933. 4 claims. (Cl. 154-28). A corrugated sheet is glued to a flat sheet and a filler then deposited on the corrugated sheet.

2,011,236. Package of paper sheets. Courtney P. Winter and Dunbar A. Rosenthal, Chambersburg, Pa. Filed Jan. 19, 1935. 5 claims. (Cl. 206-57). Package of crepe paper towels.

2,011,246. Wrapping material. William L. Hyden, assignor to DuPont Celophane Company, Inc., New York, N. Y. Filed July 7, 1932. 5. claims. (Cl. 91-68). Method of coating cellulose with protein laver and insolubilizing and drying the protein coating.

2,011,248. Printer's blanket. Theodore E. Knowlton, Watertown, N. Y. Filed Oct. 24, 1932. 7 claims. (Cl. 154-54.5). Felted fibrous material is the base.

2,011,439. Apparatus for the manufacture of cementitious sheets. René Dorn and Martin Willis, New Orleans, La. Filed April 28, 1932. 14 claims. (Cl. 25-42). Matrix for forming sheets.

2,011,440. Process for making cementitious sheets. René Dorn and Martin Willis, New Orleans, La. Filed March 1, 1933. 16 claims. (Cl. 154-33).

2,011,452. Manufacture of paper tubes and the like. Alfred Lutz, Bredereiche-Uckermark, Germany. Filed June 9, 1930. 5 claims. (Cl. 93-94).

AUGUST 20, 1935

2,011,595. Method and apparatus for fiber liberation. Lloyd D. Smiley, Dayton, Ohio, assignor of one-third each to Charles D. Altick and Edward T. Turner. Filed Dec. 7, 1933. 32 claims. (Cl. 92-7). Method of circulating liquor in a digester.

2,011,609. Paper and process therefore. George L. Bidwell, assignor to Riegel Paper Corporation, Riegelsville, N. J. Filed Feb. 21, 1933. 8 claims. (Cl. 92-40). Paper with 70-75% moisture is treated with wax, dried to 60-68% moisture and then treated with a plasticizer.

2,011,614. Cutting and slitting machinery. Caesar Bustamante, New York, N. Y. Filed May 11, 1934. 2 claims. (Cl. 164-43).

2,011,748. Thermostatic calender roll. William P. Boyd, Nashua, N. H. Filed April 12, 1935. 6 claims. (Cl. 26-39). Electrically controlled roll.

2,011,799. Digesting apparatus. Joaquin Julio de la Roza, Sr., assignor to de la Roza Corporation, Wilmington, Del. Filed Oct. 8, 1934. 3 claims. (Cl. 92-7).

2,011,914. Fibrous material and process of producing it. George L. Schwartz, assignor to E. I. du Pont de Nemour and Company, Wilmington, Del. Filed June 29, 1928. 11 claims. (Cl. 92-21). Gelatinizable and ungelatinizable fibers of papermaking length are treated with a solvent for the gelatinizable fibers until they are swollen but not dissolved and then pressed into sheet form.

2,011,915. Friction facing material. William R. Seigle, assignor to Johns-Manville Corporation, New York, N. Y. Filed Nov. 28, 1930. 6 claims. (Cl. 92-21). Asbestos, rubber and a friction-augmenting material are formed into a sheet.

2,012,014. Automatic apron taper. Charles D. McCarthy, assignor to Minnesota Mining and Manufacturing Company, St. Paul, Minn. Filed July 30, 1932. 18 claims. (Cl. 154-42).

2,012,115. Method of and apparatus for drying a continuous web. Morgan L. Woodruff, assignor to Oxford Paper Company, New York, N. Y. Filed Feb. 17, 1932. 12 claims. (Cl. 34-48).

2,012,118. Method of and means for winding a web of flexible material. James A. Cameron, assignor to Cameron Machine Company, Brooklyn, N. Y. Filed Oct. 17, 1932. 17 claims. (Cl. 242.66).

2,012,137. Paper cutting and handling machine. Edwin Olson, assignor to Dexter Folding Company, New York, N. Y. Filed Dec. 28, 1934. 26 claims. (Cl. 270-68).

AUGUST 27, 1935

2,012,357. Method of making bags. James J. Shea, assignor to United States Envelope Company, Springfield, Mass. Filed Aug. 8, 1933. 8 claims. (Cl. 93-35).

2,012,364. Apparatus for sealing paper or like bottles or containers. Herbert Maclean Ware, Northwood, Middlesex, England. Filed Oct. 21, 1931. 9 claims. (Cl. 93-6).

2,012,391. Manufacture of envelopes. Vincent E. Heywood, assignor to United States Envelope Company, Springfield, Mass. Filed March 29, 1932. 11 claims. Cl. 93-61).

2,012,709. Siding shingle. Clarence P. Cowan, assignor to The Patent and Licensing Corporaion, Boston, Mass. Filed April 21, 1933. 5 claims. (Cl. 20-5).

2,012,762. Method of and system for testing the imperviousness to water of impregnated textiles. Rudolf Kern, assignor to the firm Chemische Fabrik R. Baumheir Aktiengesellschaft, Zschollan, near Oschatz, Saxony, Germany. Filed Aug. 7, 1933. 11. claims. (Cl. 175-183).

2,012,805. Process of making insulation board. Alfred G. Brown, Los Angeles, Cal., and Stephen E. McPartlin, Chicago, Ill. Filed Nov. 28, 1934. 7 claims. (Cl. 18-48). Method of forming, coating and drying board.

SEPTEMBER 3, 1935

R19,686. Plant and aparatus for making paper. James K. Darby, assignor to Beloit Iron Works, Beloit, Wis. Original No. 1,939,337, dated December 12, 1933. Application for reissue Feb. 23, 1935. 92 claims. (Cl. 92-44).

R19,689. Shingle machine. Norman P. Harshberger, assignor to Bakelite Building Products, Inc., New York, N. Y. Original No. 1,894,037, dated Jan. 10, 1933. Application for reissue filed Jan. 9, 1935. 8 claims. (Cl. 164-28).

2,012,953. Mechanism for removing curling in blanks. Elmer H. Brunner and Samuel A. Wall, assignors to Brunner State Studios, Inc., Cleveland, Ohio. Filed Jan. 27, 1932. 15 claims. (Cl. 92-70). Machine for straightening blanks provided with a coated surface.

2,012,961. Process of saturating fibrous conduits. George Emberg, assignor to The Barrett Company New York, N. Y. Filed May 27, 1932. 6 claims. (Cl. 91-70).

2,012,968. Saturating fibrous conduit and process of making same. Stuart P. Miller, assignor to The Barrett Company, New York, N. Y. Filed May 27, 1932. 12 claims. (Cl. 91-70).

2,012,969. Continuous saturation of absorbent articles such as fibrous conduits. Stuart P. Miller, assignor to The Barrett Company, New York, N. Y. Filed June 29, 1932. 7 claims. (Cl. 91-70).

2,012,970. Saturation of absorbent conduits. Stuart P. Miller, assignor to The Barrett Company, New York, N. Y. Filed July 26, 1932. 8 claims. (Cl. 91-70).

2,012,042. Process and apparatus for preparing cellulose fibers. John P. Foster, Pala, Territory of Hawaii. Filed Feb. 5, 1934. 19 claims. (Cl. 92-9). Bagasse is treated with a weak alkali, then with dilute nitric acid and then with a stronger alkali.

2,013,086. Apparatus for and method of making multiwall bags. Webster Noyes Baker, assignor to Bagpak, Inc., New York, N. Y. Filed Feb. 27, 1932. 25 claims. (Cl. 93-14).

2,013,115. Process and apparatus for the refining of pulp. Carl Busch Thorne, Hawkesbury, Ontario, Canada. Filed Sept. 21, 1931. 4 claims. (Cl. 8-2). A closed reaction chamber for bleaching pulp.

2,013,175. Liner for containers. Bernard Rous, Brooklyn, N. Y. Filed Dec. 24, 1932. 1 claim. (Cl. 229-14).

2,013,329. Method of staining fibrous bodies. Lois W. Woodford, assignor to R. W. Callaway, New York, and Alan M. Mann, Scarsdale, N. Y., as joint trustees. Filed Feb. 20, 1933. 3 claims. (Cl. 91-68). Application of a watery suspension in a solution of a water-soluble dye of a resin soluble in an organic solvent and, after drying, applying a coating of a transparent film.

2,013,349. Building material and method of making the same. Lester Kirschbraun, assignor to The Patent and Licensing Corporation, Boston, Mass. Filed May 25, 1932. 9 claims. (Cl. 91-68). Dry laid fibers saturated with at least 500% by weight of a normally solid bituminous waterproof substance.

2,013,352. Shingle element. Harold L. Levin, assignor to The Patent and Licensing Corporation, Boston, Mass. Filed Oct. 12, 1931. 4 claims. (Cl. 108-7). An asphalt saturated and coated fibrous base shingle strip.

2,013,553. Fiber-rubber product. Morgan R. Day, assignor to Dewey and Almy Chemical Company, Cambridge, Mass. Filed Nov. 18, 1932. 3 claims. (Cl. 106-23).

SEPTEMBER 10, 1935

2,013,672. Improved method of making bags. Thomas M. Royal, Philadelphia, Pa. Filed June 13, 1931. 5 claims. (Cl. 93-35).

2,013,747. Compressed paper articles and method of making the same. Charles K. Dunlap, assignor to Sonoco Products Company, Hartsville, S. C. Filed June 28, 1932. 5 claims. (Cl. 18-59).

2,013,748. Compressed paper article. Charles K. Dunlap, assignor to Sonoco Products Company, Hartsville, S. C. Filed Nov. 3, 1934. 7 claims. (Cl. 242-122).

2,013,753. Purification of gases derived from roasting. Carl Hahn, assignor to I. G. Farbenindustrie Aktiengesellschaft, Frankfort-on-the-Main, Germany. Filed April 21, 1932. 2 claims. (Cl. 23-178). Gases subjected to electrical precipitation at 300° and then again at 100.°

2,013,788. Garment bag and process of making same. George W. Poppe, assignor to Equitable Paper Bag Co., Inc., Brooklyn, N. Y. Filed Aug. 7, 1934. 6 claims. Cl. 93-35).

2,013,841. Manufacture of fiber articles. George A. Richter, assignor to Brown Company, Berlin, N. H. Filed Dec. 10, 1932. 5 claims. (Cl. 92-20). Method of beating rag stock for a waterlaid felt.

2,013,893. Cutter for paper and board stock. Ross R. Matthews, assignor of one-half to Isaac P. Matthews, Seattle, Wash. Filed March 9, 1934. 6 claims. (Cl. 164-73).

2,013,942. Paper-making machine. Jacob F. Albright, Bastrop, La. Filed July 30, 1934. 16 claims. (Cl. 92-49). Means for stripping paper web from press roll.

2,014,142. Pressure control system for wood grinders. Everett A. Mahannah, assignor to International Paper Co., New York, N. Y. Filed Feb. 8, 1928. 16 claims. (Cl. 83-75).

2,014,243. Weight regulator. William Barrett, International Falls, Minn. Filed Oct. 12, 1934. 18 claims. (Cl. 92-46). Automatic regulator for delivering pulp to paper-making machine.

2,014,297. Paper dish and method and apparatus of forming. Robert E. Rutledhe, assignor to Sutherland Paper Company, Kalamazoo, Mich. Filed Jan. 20, 1934. 9 claims. (Cl. 229-2.5). Pressed paper dish.

2,014,326. Drive for diaphragm sorters. Rudolf Haas, assignor of one-half to Zellstoffabrik Waldhof, Mannheim-Waldhof, Germany. Filed June 20, 1934. 2 claims. (Cl. 92-32).

SEPTEMBER 17, 1935

2,014,460. Composite sheet material. Alexander V. Alm, assignor to Dennison Manufacturing Company, Framingham, Mass. Filed Feb. 14, 1930. 9 claims. (Cl. 154-46). Sheet of creped paper and a backing joined by adhesive elastic rubber.

2,014,497. Machine for making paper bags. Howze Haskell, assignor to James River Paper Products, Inc., Richmond, Va. Filed June 10, 1933. 4 claims. (Cl. 93-13).

2,014,523. Drying stick. John Ryer Dunham, assignor to John Waldron Corporation, New Brunswick, N. J. Filed May 26, 1933. 1 claim. (Cl. 34-20). A metal lath for hanging, drying, coating machines and the like.

2,014,775. Process of preparing sulphite cooking liquor. Ralph H. McKee, Jersey City, N. J. Filed Oct. 1, 1929. 6 claims. (Cl. 23-129). Cool sulphur burner gas is contacted with a strong solution of a salt of an organic acid, contacting the resulting solution with hot sulphur burner gases to expel the sulphur dioxide and contacting a mixture of the expelled sulphur dioxide and sulphur burner gas with an alkali-forming metal compound in presence of water.

2,014,815. Method of and means for making pressed plates, dishes and the like. Robert E. Rutleige, assignor to The Sutherland Paper Company, Kalamazoo, Mich. Filed May 4, 1934. 4 claims. (Cl. 113-46).

SEPTEMBER 24, 1935

2,015,087. Wire cloth supporting and attaching means. Harold Robert Rafton, assignor to Rafton Engineering Corporation, Andover, Mass. Filed Nov. 3, 1932. 12 claims. (Cl. 209-403).

2,015,139. Screen plate for paper-making machines. Frank Dustan, assignor to William A. Hardy and Sons Company, Fitchburg, Mass. Filed May 3, 1934. 3 claims. (Cl. 92-30).

2,015,140. Screen plate for paper-making machines. Frank Dustan, assignor to William A. Hardy and Sons Company, Fitchburg, Mass. Filed Oct. 3, 1934. 3 claims. (Cl. 92-30).

2,015,141. Screen plate for paper-making machines. Frank Dustan, assignor to William A. Hardy and Sons Company, Fitchburg, Mass. Filed Oct. 3, 1934. 4 claims. (Cl. 92-30).

2,015,202. Method of forming boxes. John S. Stokes, assignor to Stokes and Smith Company, Philadelphia, Pa. Filed Jan. 14, 1932. 38 claims. (Cl. 93-43).

2,015,359. Ply-wood, laminated paper board or similar composite article. John D. Carter, assignor to Philadelphia Quartz Company, Philadelphia, Pa. Filed April 4, 1933. 8 claims. (Cl. 154-40). The board is treated with an alkali restraining solution and united with a silicate of soda adhesive.

2,015,416. Method of making corrugated asbestos sheeting. Edward A. Toohey, and John C. Kershaw, assignors to Johns-Manville Corporation, New York, N. Y. Filed Oct. 10, 1931. 6 claims. (Cl. 154-33).

2,015,426. Method of molding articles from pulp material. Arthur C. Gough, assignor to Charles F. Cowdrey, Jr., Fitchburg, Mass. Filed Oct. 18, 1933. 4 claims. (Cl. 18-59).

2,015,440. Finishing of artificial leather. Milton O. Schur and Benjamin G. Hoos, assignors to Brown Company, Berlin, N. H. Filed April 11, 1932. 4 claims. (Cl. 41-33).

2,015,441. Finishing of artificial leather. Milton O. Schur and Benjamin G. Hoos, assignors to Brown Company, Berlin, N. H. Filed Jan. 27, 1933. 14 claims. (Cl. 91-68).

2,015,531. Roll coating machine. William J. Montgomery, assignor to The Champion Paper and Fibre Company, Hamilton, Ohio. Filed July 25, 1932. 5 claims. (Cl. 91-48).

W. S. Tyler Company Joins TAPPI

The W. S. Tyler Company of Cleveland, Ohio has become a Contributory Member of the Technical Association of the Pulp and Paper Industry. This company is one of the country's oldest and largest producers of industrial wire cloth, having been founded in 1872.

The production of fourdrinier wires and other types of wires for paper mills is an important part of the company's business.

This company has devoted much effort to the improvement of wires through research in metallurgy and wire drawing and weaving methods. A large laboratory is maintained for this purpose and a trained staff of engineers is constantly working to produce the type of wire which will best meet requirements of the paper industry.

Special emphasis has been given to research to develop wire cloth for longer service in acids and corrosive solutions such as are encountered in pulp and paper manufacturing. Dur-Loy, a non-corrosive alloy especially suited to wire weaving, was developed and placed on the market by The W. S. Tyler Company several years ago and its use is widespread for filters, save-alls, deckers and pulp thickeners. Special weaves have been developed to give the most economical and efficient service for each purpose.

This company has been active in the development of screening machinery for all types of material. It developed the Hum-mer Electric Screen which is known the world over for economical and accurate screening. In the paper and pulp industries, a special type unit has been developed for screening color, coating and filler solutions.

The W. S. Tyler Company, manufactures the Tyler-Niagara Screen, a mechanically vibrated circle-throw type of screen suitable for wood chip screening. It developed the Ty-Lab Tester, a specially designed machine for making mechanical sieve analyses of wood chips.

The Tyler Ro-Tap Testing Sieve Shaker and the Tyler Standard Screen Scale Testing Sieves are standard the world over for accurate sieve analyses.

A special feature of the company's service is its immense stock of all standard specifications of wire cloth from which immediate shipment can be made to supply rush orders for cylinder facings, filter cloth and other purposes.

B. C. Pulp for Eastern Canada

[FROM OUR REGULAR CORRESPONDENT]

MONTREAL, QUE., October 21, 1935—From Saint John, N. B., it is announced that three new lines of steamships will be using that port during the season which will be opened next month and negotiations are under way with a fourth line.

It is also stated that arrangements have been made by the Harbor Commission for the handling of large shipments of pulp to be brought here, by water, from British Columbia for transhipment, by rail, to Quebec. It is of a special make to be used in the manufacture of certain grades of paper.

Ohio TAPPI Section Receives Charter

The formal launching of the Ohio Section of the Technical Association of the Pulp and Paper Industry took place at the Manchester Hotel, Middletown, Ohio on Saturday evening, October 19, 1935.

Following an excellent dinner the meeting was called to order by the chairman, Vincent Waters, of the Wrenn Paper Company, who called on R. G. MacDonald, national secretary, to introduce C. C. Heritage, president of the association. Mr. MacDonald briefly sketched the factors that have contributed to the individuality of the existing local sections.

C. C. Heritage Presents Charter

Mr. Heritage talked on the theme "Why be a TAPPI man." He pointed out that the association is essentially a service organization devoted to the finding, organizing and disseminating of technical facts of particular application and usefulness to the pulp and paper industry. This service is made possible by the organized joint action of its 1200 members, all contributing to the general good.

The part played by the 200 or more members serving on thirty committees was outlined. A committee decides upon a certain line of work wherein the industry, as a whole, lacks knowledge based upon technical facts that could be profitably utilized. This program is considered by the division and when finally approved by the vice-president, becomes a major project to be reported on at national meeting of the association. In this way meeting programs are planned for one to three years ahead and the results obtained lead eventually to standard methods or recommended practices of the association. Thus the committee organization is gradually building a structure of reliable technical information, the value of which, both to individuals and to the industry can hardly be questioned.

He then outlined the various tangible benefits that every member receives—the publications, literature reviews, patent reviews, bibliographies, Technical Association Papers, and Loose-Leaf Standards.

Some of the future plans of the association consist of research activities, co-operation with colleges, seminars and the preparation of monographs that will give authoritative and up to date information on pulp and paper manufacturing subjects, and the compilation of a collective bibliography which will record the literature since 1928, the association having previously published a record covering the period 1900-1928.

Following this talk, Mr. Heritage as representative of the Executive Committee presented the chairman, Mr. Waters with the charter authorizing the Ohio Section, and with it a gavel to be used by the present and future section chairmen.

The charter and gavel were officially received by Mr. Waters and the sixth local section of the Technical Association came into being.

Election of Officers

E. C. Hendrickson of the Mead Corporation made a motion that the provisional officers of the section be elected officers of the newly formed section and upon being seconded by K. P. Geohegan of the Aetna Paper Company, this was voted unanimously by those present. The officers are: chairman, Vincent F. Waters, Wrenn Paper Company; 1st vice-chairman, J. J. O'Connor, Mead Corporation; 2nd vice-chairman, H. H. Latimer, Beckett Paper Company; secretary-treasurer, C. D. Roess, Wrenn Paper Company, and executive committeeman, G. H. Harvey, Gardner-Richardson Company.

Greetings from Superintendents Association

Mr. Patrick, newly elected chairman of the Miami Valley Division of the Superintendents Association, extended his best wishes to the Section and asked each member to consider that he has a standing invitation to Miami Valley Division meetings.

A Tribute to Technical Progress

George Harvey was called upon, as one of the pioneer members of TAPPI, to say a few words. Mr. Harvey recollected a time twenty years ago, when the national organization was no larger than the local group. He gave a number of reminiscences of the early days of his career when kerosene lamps had to be cleaned and paper machine speeds regulated by lagging belt pulleys. The mills that expect to survive modern competition must work hard to keep up with technical developments.

Echoes of National Safety Council Meeting

H. H. Harrison, superintendent of the Crystal Tissue Company, introduced Earl E. Grant, vice-president of his company, and newly elected chairman of the pulp and Paper Section of the National Safety Council which had just completed its annual meeting at Louisville, a convention attended by nearly 7,000 people. Mr. Grant as City Commissioner of Middletown, welcomed the guests present and stated that it was fitting that the charter should have been presented in a community that once had been host to the National Association at one of its fall meetings.

Mr. Grant, in turn introduced W. J. Brennan, Safety Director of the Department of Labor and Industry of the State of Maine and formerly of the St. Croix Paper Company. Mr. Brennan in a spirited and interesting talk appealed to the technical man to recognize that he has a responsibility in contributing to the safety and welfare of the man doing manual jobs in the mill. A mill can spend much money on research and engineering and lose the benefits through accident compensation and loss of manpower. He cited a number of cases where serious accidents needlessly occurred because the workmen lacked information that should have been given to him.

Papermaking Problems

Homer H. Latimer, general superintendent of the Beckett Paper Company, presented a brief and thought-encouraging talk on some manufacturing problems worthy of attention.

Considering beaters, Mr. Latimer mentioned the questions thick vs. thin bars, high vs. low consistency, influence of beater travel. Certain axioms regarding these subjects were stated but were not agreed to by the speakers who pointed out that the human element is of greater influence in obtaining beating results.

Dirt in paper is usually considered to be related to screening, but is more likely due to rust from corroded piping.

The problem of sheet formation was discussed next and the fact was brought out that a sheet having good formation from the paper making standpoint may offer disadvantages to the user of the product.

Tub sizing is a subject of considerable current interest. Shall we use high or low viscosity starch? Here again the

use requirements of the printer is changing the point of view of the paper maker.

Moisture control, finish, cooling rolls and personnel problems were offered as subjects needing more attention.

Those present included:

Those Who Attended

M. L. Barker, W. J. Reigers, Val Friedrich, Jr., and Myron Wittiner, Beckett Paper Company, Hamilton, Ohio; J. C. Richardson and Thage Dahlgren, chemist, Gardner-Richardson Company, Lockland, Ohio; A. R. Harvey and Geo. H. Harvey, Gardner-Richardson Company, Middletown, Ohio; Edward Lunn and Homer H. Latimer, Beckett Paper Company, Hamilton, Ohio.

C. C. Heritage, Oxford Paper Company, Rumford, Me.; W. S. Timme, P. E. Howard and Wm. J. Bevis, Bevis Machine Company, Middletown, Ohio; Chas. H. Pippert, Shartle Brothers Machine Company, Middletown; P. R. Schreiber, General Dyestuff Corporation, Chicago.

C. D. Roess, Mr. and Mrs. V. F. Waters, Howard More, and Thomas Duff, superintendent, Wrenn Paper Company, Middletown, Ohio; C. E. Roth, E. C. Hendrickson, L. E. Michael, H. W. Laymon and M. L. Downs, Mead Corporation, Chillicothe, Ohio.

R. G. H. Smith, L. C. Currier, R. B. Roe, Claude A. Sorg, and R. H. Stevens, Sorg Paper Company, Middletown, Ohio; Rex. W. Radsch, Wisconsin Wire Works, Appleton, Wis.; K. P. Geohegan, Aetna Paper Company, Dayton; W. Young, Franklin, Ohio; D. J. Monarch, Miami Valley Coated Paper Company, Franklin, Ohio; D. D. Patrick, superintendent, Cheney Pulp and Paper Company, and chairman of the Miami Valley Division of the American Pulp and Paper Mill Superintendents Association.

H. G. Macklem, Beckett Paper Company; H. F. Gitzinger, assistant chemist, Aetna Paper Company; J. L. Kievit, Leo Fleischer, H. H. Harrison, superintendent, C. H. Rybolt and John Burdsal, The Crystal Tissue Company, Middletown; Hugh Bradner and Miss Pindell, students, Miami University, Oxford, Ohio.

Geo. C. Munroe, physicist, Champion Paper and Fibre Company, Hamilton, Ohio; Mark Plunginan, Thomas & Hochwalt Laboratory, Dayton; J. R. Arthur, Aetna Paper Company; M. D. Woodruff, Bauer Brothers Company, Springfield, Ohio; L. K. Arnold, Engineering Experiment Station, Iowa State College, Ames, Iowa.

Thomas M. Burke, chemist, Container Corporation of America, Cincinnati; F. S. Crysler, Karl Melenbacker, L. E. Longstreth, and C. J. Coleman, Container Corporation of America, Wabash, Ind.

Wm. W. Macklem, Black-Clawson Company, Hamilton, Ohio; Richard Holmes, Gardner-Richardson Company, Lockland; R. F. Reed, University of Cincinnati; Douglas Robbins, Douglas Robbins Sales Company, Middletown, Ohio; O. P. Gepshart, superintendent, Miamisburg Paper Company, Miamisburg, Ohio; R. G. MacDonald, secretary, TAPPI, New York City; E. E. Grant, vice-president, Crystal Tissue Company, Middletown; W. J. Brennan, St. Croix Paper Company, Woodland, Me., and safety engineer of the Department of Labor and Industry, State of Main.

New England TAPPI Discusses Drying

The New England Section of the Technical Association of The Pulp and Paper Industry met Saturday, October 19 at Dalton, Mass. A dinner was served at the Irving House at 7:00 P.M. following an afternoon of golf at the Wahconah Country Club. The business meeting was held at the Crane Community House at 8:30 with Mr. Frederic C. Clark, chairman, presiding.

A paper "Control of Drying on Paper Machines and Air Driers" was read by F. C. Clark. Albert Allen of the Foxboro Company, Foxboro, Mass., led the discussion which was long and interesting. Those present were:

F. L. Shonkwiler, Midwest-Fulton Machine Company, Dayton, Ohio; Malcolm B. Hall, The Foxboro Company, Foxboro, Mass.; P. E. Hodgdon, Deerfield Glassine Company, Monroe Bridge, Mass.; B. W. Dean, E. D. Jones & Sons Company, Pittsfield, Mass.; D. R. G. Williams, Foxboro Company, Troy, N. Y.; John M. McGarry, R. C. Pierce and L. B. Tucker, Crane & Co., Dalton, Mass.; Charles B. Muzzy, E. D. Jones & Sons Company, Pittsfield, Mass.; William J. Glendon, Crane & Co., Dalton, Mass.; S. Harley Jones, E. D. Jones & Sons Company, Pittsfield, Mass.; Henry L. Mellen, Deerfield Glassine Company, Monroe Bridge, Mass.; Helen U. Kiely, American Writing Paper Company, Holyoke, Mass.; H. H. Williams, E. D. Jones & Sons Company, Pittsfield, Mass.

E. Krichels, Hurlbut Paper Company, South Lee, Mass.; Roger H. Love, Deerfield Glassine Company, Monroe Bridge, Mass.; F. H. Williams, Crane & Co., Dalton, Mass.; Geo. H. Spencer, E. D. Jones & Sons Company, Pittsfield, Mass.; P. K. Crompton, Crompton Brothers, Manchester, England; E. A. Richardson, H. M. Keating and P. W. Ayers, Smith Paper, Inc., Lee, Mass.; R. T. Mann, Foster Paper Company, Utica, N. Y.; George Hoover, Jr., West Va. Pulp and Paper Company, Mechanicville, N. Y.; George Philbirck, Atlantic Precision Instrument Company, Malden, Mass.

F. S. Klein, Hurlbut Paper Company, South Lee, Mass.; John H. Rich, Foster Paper Company, Utica, N. Y.; Harry Norton, Vincent W. Richard, C. Frederick Young and R. H. Dempsey, Rising Paper Co., Housatonic, Mass.; Robert McKay, Mason-Neilon Regulator Company, Boston, Mass.; Albert Allen, Foxboro Company, Foxboro, Mass.; A. A. Bush, E. D. Jones & Sons Company, Pittsfield, Mass.; J. J. Burke, Bird & Son, E. Walpole, Mass.

G. B. Reed, Bird & Son, E. Walpole, Mass.; L. A. O'Rourke, Brightwater Paper Company, Adams, Mass.; H. J. Moody, Crane & Co., Dalton, Mass.; E. A. Sitzer, and J. W. Joslyn, Hurlbut Paper Company, South Lee, Mass.; Walter Aiken, Clark-Aiken Company, Lee, Mass.; Harry Spencer, Howard Smith Paper Company, Beauharnois, Canada; E. E. Dawson, Jr., Howard Smith Paper Company, Dalton, Mass.; Herbert Hobday, Mountain Mill Paper Company, Lee, Mass.; Wiliam F. Powers, Smith Paper, Inc., Lee, Mass.; Frank Zeitlin, West Virginia Pulp and Paper Company, Mechanicville, N. Y.; A. A. Coffin, Titanium Pigment Company, New York City.

W. L. Foote, B. F. Perkins & Son, Holyoke, Mass.; Grant Willey and Charles J. Backus, Collins Manufacturing Company, N. Wilbraham, Mass.; Joseph Tyniec and James Fitzgerald, Collins Manufacturing Company, N. Wilbraham, Mass.; Arthur L. Hobday, Southworth Paper Company, West Springfield, Mass., F. W. Adams, M. I. T., Cambridge, Mass.; E. O. Reed, Crane & Co., Dalton, Mass.

Fred Clark, Skinner and Sherman, Inc., Boston, Mass.; Winthrop Crane, Bruce Crane, Murray Crane, Crane & Co., Dalton, Mass.; Herman T. Barker, Bird and Son, Inc.,

East Walpole, Mass.; John F. Inderdohnen, Bristol Company, Waterbury, Conn.; W. A. Nivling, Huron Milling Company, Boston, Mass.; Walter G. Hendrich, Byron Weston Company, Dalton, Mass.; Milton Murray, Chapin & Gould Company, Russell, Mass.; Thomas E. Boyne, Smith Paper Company, Lee, Mass.; Bradford West, Smith Paper Company, Pittsfield, Mass.

New TAPPI Members

The Executive Committee of the Technical Association of the Pulp and Paper Industry announce that the following have been elected to membership:

William R. Barber, research chemist, Crown Williamette Paper Company, Camas, Wash. who is a graduate of Stanford University.

Luther C. H. Beighey, sulphite superintendent, Hammermill Paper Company, Erie, Pa. with whom he has been associated since 1914.

B. L. Browning, research associate, Institute of Paper Chemistry, Appleton, Wis. received his doctorate from the University of Wisconsin in 1928. Dr. Browning was formerly research chemist for the Scott Paper Company, Chester, Pa. and for Leeds and Northrup Company, Philadelphia. Pa.

E. F. Clark, Manager, L. H. Butcher Company, Seattle, Wash.

Charles J. Coleman, chemist, Coating Mill, Container Corporation of America, Wabash, Ind. is a 1934 graduate chemical engineer of the University of Cincinnati.

George H. Dyer, power supervisor, Oxford Paper Company, Rumford, Maine, is a 1922 graduate mechanical engineer of the Massachusetts Institute of Technology.

H. H. Lagerpusch, chief chemist, American Coating Mills, Elkhart, Ind. is a 1924 graduate of the University of Illinois. He was formerly chemist for the Mead Corporation, Chillicothe, Ohio; S. D. Warren, Cumberland Mills, Me.; Miami Valley Coated Paper Company, Franklin, Ohio; and superintendent of the Wabash, Ind. mill of the Container Corporation of America.

Herbert K. Hamilton, buyer, Aldine Paper Company, New York, was formerly paper and printing buyer for the Electrolux Company, in Berlin, Germany.

Francis L. Harrington, chemist, Cottrell Paper Company, Rock City Falls, N. Y. is a 1935 graduate of Worcester Polytechnic Institute.

Albert M. Kaiser, assistant pulp mill superintendent, West Virginia Pulp and Paper Company, Tyrone, Pa., is a 1925 graduate of Pennsylvania State College.

Milton J. Maguire, resident agent, Paper Makers Chemical Corporation, Lockport, N. Y. attended Rensselaer Polytechnic Institute and was formerly chemist for the Aetna Chemical Company and Davis Chemical Corporation.

Frederick S. Mitchell, chief engineer, Titaghur Paper Mills Company Ltd., Titaghur, Bengal, India, is a 1924 graduate of the Polytechnic Institute of Engineering, London, England, and was formerly engineer for John Dickinson & Co., Watford, England; and James Bertram & Sons Ltd., Edinburgh, Scotland.

Raymond W. Sparling, proprietor, R. W. Sparling Company, (water control equipment), Los Angeles, Cal.

Thomas T. Watson, metallurgical engineer, Lukens Steel Company, Coatsville, Pa. is a 1913 graduate of the Royal Technical College of England.

William R. Gibson, plant engineer, Rainier Pulp and Paper Company, Shelton, Wash. attended University College, London, England, and has been chief engineer or plant engineer of the Wahlen Pulp and Paper Company, Washington Pulp & Paper Company, Olympic Forest Products Company, and the Grays Harbor Pulp & Paper Company.

Quentin P. Peniston, chemist, Coos Bay Pulp Corporation, Empire, Ore. is a 1931 graduate of the University of Washington and in 1933 received his master's degree from the Massachusetts Institute of Technology. He was formerly chemist for the Rainier Pulp & Paper Company.

Albert B. Clark, superintendent of finishing, shipping and converting, Racquette River Paper Company, Potsdam, N. Y. was formerly with the West Virginia Pulp & Paper Company, Luke, Md.; Provincial Paper Ltd., Thorold, Ont.; Cherry River Paper Company, Richwood, W. Va.

Lawrence A. O'Rourke, chief chemist, Brightwater Paper Company, Adams, Mass., is a 1920 graduate of the University of Maine and was formerly chemist for the Eastern Manufacturing Company, Bangor, Me. and Bird & Son, E. Walpole, Mass.

Earl W. Gutliph, assistant superintendent and chief chemist, Bloomer Bros. Company, Inc., Newark, N. Y., is a 1932 graduate of the New York State College of Forestry.

British Technical Proceedings Ready

Vol. 16, Part 1 of the Proceedings of the Technical Section of the Paper Makers Association of Great Britain and Ireland, is now ready and copies may be obtained from the Book Department of the Technical Association of the Pulp and Paper Industry, 122 E. 42nd street, New York at $2.50 per copy. These Proceedings are issued semi-annually and copies of earlier issues may be obtained at the above mentioned price.

Vol. 16 contains the following papers together with discussions thereof:

What the Printing Process Demands of Paper, by Julius Bekk; Cost of Faults in a Paper Mill, by D. McNeill; Photoelectric Cells and their Industrial Applications, by R. C. Walker; Ultraviolet Light as an Aid in Papermaking, by J. Grant; Studies of some of the Properties of Paper Stock; Composition of Furnish, Freeness, and Wetness, by J. L. Gartshore; My First Impressions of Papermaking, by G. A. Hutchinson; New Condensate Regulating Valve for Drying Cylinders, by A. Slingsby; Possibilities of Scientific Management in the Paper Industry, by K. Ross; Nickel Alloys in the Papermaking Industry, by A. B. Everest; Technical Education for Paper Mill Workers, by R. H. Clapperton; Adka Patent Aerator Save-all, by S. Anspach; Manufacture of Titanium Pigments and Their Use in Papermaking, by I. E. Weber and W. Woodhall; Air Conditioning in Paper Mills, by A. Galbraith; Reason for Increase of Strength on Beating, by S. R. H. Edge; A Discussion between Printers and Papermakers, Messrs. A. V. Biggs, H. H. Alway, P. King-Smith, R. A. Ainslie, C. S. Hedley; Treatment of Water for the Papermaking Industry, by A. H. Waddington and R. Clark.

TAPPI Notes

M. S. Shenk formerly with Stein-Hall Manufacturing Company, Chicago, is now chemical and technical supervisor of the Manhattan Paste and Glue Company, 382 Second avenue, New York. Under Mr. Shenk's supervision the Manhattan Paste and Glue Company will manufacture all kinds of starch sizes used in the paper and textile industries. He will be located at the above company's starch and dextrine plant at 276 Johnston avenue, Jersey City, N. J.

IMPORTS OF PAPER AND PAPER STOCK

NEW YORK, BOSTON, PHILADELPHIA AND OTHER PORTS

NEW YORK IMPORTS

WEEK ENDING OCTOBER 19, 1935

CIGARETTE PAPER

Max Speigel & Son, Alberta, Trieste, 5 cs.; R. J. Reynolds Tobacco Co., Pr. Harding, Havre, 13 cs.; Champagne Paper Corp., Liberty, Havre, 411 cs.; Champaign Paper Corp., Ile de France, Havre, 999 cs.; Standard Products Corp., Ile de France, Havre, 75 cs.; De Manduit Paper Corp., Washington, Havre, 1 cs.

WALL PAPER

F. Blank, Washington, Havre, 10 cs.; Titan Shipping Co., Bergensfjord, Oslo, 5 cs.

NEWSPRINT

———, Bergensfjord, Oslo, 299 rolls; Perkins Goodwin & Co., Deutschland, Hamburg, 95 rolls; Jay Madden Corp., Deutschland, Bremen, 117 rolls.

PRINTING PAPER

Jay Madden Corp., Pr. Harding, Hamburg, 118 rolls, 57 bls.

WRAPPING PAPER

Walker Goulard Plehn Co., Pr. Harding, Hamburg, 718 rolls; Jay Madden Corp., Pr. Harding, Hamburg, 256 rolls; F. C. Strype, Black Falcon Antwerp, 5 cs.; Scharf Bros., Statendam Rotterdam, 3 cs.; Walker Goulard Plehn Co., Washington, Hamburg, 13 rolls; M. M. Cohen, Washington, Hamburg, 83 rolls; Globe Shipping Co., Deutschland, Hamburg, 47 rolls; S. S. Kresge, Pipestone County, Havre, 3 cs.

FILTER PAPER

H. Reeve Angel & Co., Inc., Britannic, London, 10 cs.; J. Manheimer, Aquitania, Southampton, 127 bls., 1 cs.; A. W. Fenton, Co., Deutschland, Hamburg, 70 lbs.; C. Schleicher & Schull Co., Deutschland, Hamburg, 10 cs.

PACKING PAPER

C. Happel, Statendam, Rotterdam, 7 cs.

DRAWING PAPER

———, Aquitania, Southampton, 1cs.

BARYTA COATED PAPER

Globe Shipping Co., Europa, Bremen, 6 cs., 12 crates;

BASIC PAPER

Dingelstedt & Co., Europa Bremen, 7 s.

SURFACE COATED PAPER

Metropolitan Importing & Manufacturing Co., Deutschland, Hamburg, 7 cs.; Globe Shipping Co., Deutschland, Hamburg, 2 cs.; L. A. Consmiller, Deutschland, Bremen, 10 cs.

METAL COATED PAPER

K. Pauli Co., Deutschland, Bremen, 49 cs.

TRANSFER PICTURES

Rohner Gehrig & Co., Europa, Bremen, 10 cs.

STENCIL PAPER

Franker Ribbon & Carbon Manfg. Co., Britannic, London, 1 cs.; C. Happel, E. Francqui Antwerp, 2 cs.; International F'd'g. Co., E. Francqui, Antwerp, 9 cs.

CARBON PAPER

Gerlach Co., Aquitania, Southampton, 2 cs.

COLORED PAPER

———, Black Falcon, Antwerp, 2 cs.

PAPER CAPS

International Hatters Supply Co., Excalibur, Genoa, 2 cs.; Empire Hat Leather Co., Excalibur, Genoa, 14 cs.; ———, Excalibur, Genoa, 4 cs.

WRITING PAPER

Globe Shipping Co., Washington, Havre, 8 cs.

PAPER TUBES

———, Deutschland, Hamburg, 24 cs.

MISCELLANEOUS PAPER

Japan Paper Co., G. Maersk, Kobe, 12 cs.; Keller Dorian Paper Co., Ile de France, Havre, 4 cs.; Jay Madden Corp., Deutschland, Bremen, 17 bbls.

RAGS, BAGGINGS, ETC.

Armstrong Cork Co., Britannic, London, 185 bls. paper stock; Darmstadt Scott & Courtney, Black Falcon Antwerp, 161 bls. jute waste; N. Schwab & Sons, Inc., Black Falcon, Antwerp, 67 bls. cotton waste; Castle & Overton, Inc., Black Falcon, Antwerp, 60 bls. bagging; ———, Capulin Leith, 166 bls. bagging; ———, Statendam, Rotterdam, 57 bls bagging; J. Flannery, Liberty, Havre, 79 bls. rags; Burton Webbing Co., Liberty, Havre, 60 bls. cotton waste; American Express Co., Black Osprey, Rotterdam, 89 bls. rags; ———, Excalibur, Alexandria, 61 bls. bagging; ———, Excalibur, Alexandria, 78 bls. rags; W. Steck & Co., Excalibur, Alexandria, 45 bls. rags; Banco Coml. Italiane Trust Co., Excalibur, Alexandria, 65 bls. rags; P. Berlowitz, Excalibur, Alexandria, 65 bls. rags; Darmstadt Scott & Courtney, Excalibur, Alexandria, 146 bls. rags; J. Flannery, Excalibur, Marseilles, 57 bls. rags; ———, American Banker, London, 64 bls. bagging; A. H. Searle, Washington, Havre, 3 bls. bagging; Castle & Overton, Inc., Nordhval, Buenos Ayres, 100 bls. rags; Castle & Overton, Inc., Uruguayo, Buenos Ayres, 89 bls. old canvas; Castle & Overton, Inc., Uruguayo, Buenos Ayres, 43 bls. bagging, 104 bls. rags; Manufacturers Trust Co., Deutschland, Hamburg, 94 bls. jute waste; Darmstadt Scott & Courtney, Pipestone County, Dunkirk, 244 bls. rags; G. W. Miller Co., Inc., Pipestone County, Dunkirk, 99 bls. dark cottons; E. J. Keller Co., Inc., Pipestone County, ———, 360 bls. rags; Whaling Waste Products Co., Pipestone County, Havre, 126 bls. jute waste.

HIDE GLUE

———, Deutschland, Hamburg, 380 bags.

OLD ROPE

Banco Coml Italiane Trust Co., Britannic, London, 62 coils; Manufacturers Trust Co., American Banker, London, 56 bls.

CHINA CLAY

Whitaker Clark & Daniels, Lancastria, Liverpool, 390 bags.

CASEIN

———, Southern Cross, Buenos Ayres, 84 bags; ———, Deutschland, Hamburg, 80 bags.

WOOD PULP

———, Pr. Harding, Hamburg, 199 bls. wood pulp, 21 tons; Bulkley Dunton & Co., Black Osprey, ———, 330 bls. wood pulp, 66 tons; ———, Washington, Hamburg, 143 bls. wood pulp, 15 tons; E. M. Sergeant Pulp & Chemical Co., Bergensfjord, Oslo, 150 bls. wood pulp; Irving Trust Co., Bergensfjord, Oslo, 880 bls. mechanical pulp; Chemical Bank Trust Co., Bergensfjord, Oslo, 1790 bls. sulphite; Perkins Goodwin & Co., Bergensfjord, Drammen, 300 bls. sulphite; J. Andersen & Co., Bergensfjord, Oslo, 1585 bls. sulphite; The Borregaard Co., Inc., Bergensfjord, Sarpsborg, 908 bls. sulphate; Bank of N. Y. Trust Co., Deutschland, Hamburg, 2750 bls. wood pulp. 550 tons; Castle & Overton, Inc., Deutschland, Hamburg, 2525 bls. wood pulp, 505 tons; ———, Deutschland, Hamburg, 300 bls. wood pulp, 61 tons; Parsons & Whittemore, Inc., Deutschland, Bremen, 125 bls. sulphite; Bulkley Dunton & Co., A. Ballin, ———, 300 bls. wood pulp.

WOOD PULP BOARDS

Parsons & Whittemore, Inc., Bergensfjord, Oslo, 40 bls.

NEWARK IMPORTS

WEEK ENDING OCTOBER 19, 1935

H. G. Craig Co., Dompaco, Donnacona, 300 rolls newsprint.

PORTLAND IMPORTS

WEEK ENDING OCTOBER 19, 1935

Gottesman & Co., Inc., Ragnhildsholm, Sweden, 1000 bls. wood pulp.

ALBANY IMPORTS

WEEK ENDING OCTOBER 19, 1935

Halifax Power & Pulp Co., St. Therese, Sheet Harbor, 11,029 bls. mechanical pulp, 2466 tons; Halifax Power & Pulp Co., St. Therese, Sheet Harbor, 144 bls. pulp screenings, 31 tons; International Lumber Co., Novasli, Newcastle, 2200 cords pulpwood.

BOSTON IMPORTS

WEEK ENDING OCTOBER 19, 1935

———, Black Falcon, Antwerp, 32 bls. bagging; ———, Black Falcon, Antwerp, 36 bls. cotton waste; ———, Black Falcon, Antwerp, 13 rolls, 11 bls. packing paper; International Purchasing Co., Black Falcon, Antwerp, 57 bls. old rope; Ayres W. C. Jones Co., Black Falcon, Antwerp, 27 bls. cotton waste; H. J. Fawcett, Black Falcon, Antwerp, 85 bls. flax waste; Meredith Linen Mills, Black Falcon, Antwerp, 148 bls. flax waste; Irving Trust Co., Black Falcon, Antwerp, 53 bls. bagging; G. F. Malcolm, Lancastria, Liverpool, 40 cs. tissue paper; F. S. Webster Co., Inc., Lancastria, Liverpool, 4 cs. tissue paper; Irving Trust Co., Pipestone County, Havre, 165 bls. bagging; Ayres W. C. Jones Co., Pipestone County, Havre, 114 bls. cotton waste; Gottesman & Co., Inc., Ragnhildsholm, Sweden, 640 bls. wood pulp; Parsons & Whittemore, Inc., Ragnhildsholm, ———, 500 bls. wood pulp.

PHILADELPHIA IMPORTS

WEEK ENDING OCTOBER 19, 1935

A. H. Searle, Black Falcon, Antwerp, 230 bls. rags; American Sanitary Rag Co., Black Falcon, Antwerp, 72 bls. rags; ———, Black Falcon, Antwerp, 355 bls. rags, J. M. Hagy Waste Works, Black Falcon, Antwerp, 70 bls. rags; Union Waste Co., Black Falcon, Antwerp, 23 bls. rags; ———, Capulin, Dundee, 21 bls. paper stock; ———, Excalibur, Alexandria, 49 bls. rags; True & McClelland, Pipestone County, Dunkirk, 52 bls. jute card waste; National Vulcanized Fibre Co., Pipestone County, Dunkirk, 58 bls. rags; Philadelphia National Bank, Pipestone County, Dunkirk, 48 bls. rags; Castle & Overton, Inc., Pipestone County, Dunkirk, 247 bls. rags; E. J. Keller Co., Inc., Pipestone County, ———, 31 bls. rags; Castle & Overton, Inc., Pipestone County, Havre, 723 bls. rags; J. M. Hagy Waste Works, Pipestone County, Havre, 18 bls. rags; National Vulcanized Fibre Co., Pipestone County, Havre, 61 bls. rags; Philadelphia National Bank, Pipestone County, Havre, 117 bls. rags; F. Weber & Co., Pipestone County, Havre, 1 cs. writing paper.

WILMINGTON IMPORTS

WEEK ENDING OCTOBER 19, 1935

Halifax Power & Pulp Co., St. Therese, Sheet Harbor, 2628 bls. mechanical pulp, 587 tons.

BALTIMORE IMPORTS

WEEK ENDING OCTOBER 19, 1935

Congoleum Nairn Co., Liberty, Havre, 251 bls. rags; Irving Trust Co., Liberty, Havre, 56 bls. rags; Frye Mfg. Co., Black Osprey, Rotterdam, 10 cs. stencil paper; Certainteed Products Corp., Liberty, Havre, 56 bls. rags; Bulkley Dunton & Co., City of Norfolk, ———, 300 bls. wood pulp, 61 tons; Atterbury Bros., Inc., City of Norfolk, Hamburg, 2000 bls. chemical pulp, 406 tons; Atterbury Bros. Inc., City of Norfolk, Hamburg, 300 bls. mechanical pulp, 50 tons; Jay Madden Corp., City of Norfolk, Hamburg, 155 rolls newsprint; Johaneson Wales & Sparre, Inc., City of Norfolk, Hamburg, 450 bls. mechanical pulp, 91 tons; M. Sone, City of Norfolk, Hamburg, 324 bls. wood pulp, 50 tons; ———, City of Norfolk, Hamburg, 71 cs. printing paper; Parsons & Whittemore, Inc., City of Norfolk, Hamburg, 160 bls. wood pulp; Bulkley Dunton & Co., Korsholm, ———, 3700 bls. wood pulp; Gottesman & Co., Inc., Korsholm, Sweden, 2000 bls. wood pulp.

NORFOLK IMPORTS

WEEK ENDING OCTOBER 19, 1935

Chase National Bank, Black Osprey, Rotterdam, 190 bls rags; Jay Madden Corp., City of Norfolk, Hamburg, 115 rolls newsprint; Old Dominion Paper Co., City of Norfolk, Hamburg, 125 bls. newsprint; ———, City of Norfolk, Hamburg, 193 rolls, 12 bls. newsprint; Virginia Paper Co., City of Norfolk, Hamburg, 116 bls. newsprint; Chase National Bank, City of Norfolk, 114 bls. bagging; R. J. Reynolds Tobacco Co., City of Norfolk, Havre, 238 cs. cigarette paper.

NEWPORT NEWS IMPORTS

WEEK ENDING OCTOBER 19, 1935

Castle & Overton, Inc., City of Norfolk, Hamburg, 655 bls. wood pulp, 131 tons.

NEW ORLEANS IMPORTS

WEEK ENDING OCTOBER 19, 1935

Parsons & Whittemore, Inc., Frankfurt, ———, 300 bls. wood pulp.

MONTREAL IMPORTS

WEEK ENDING OCTOBER 19, 1935

Gottesman & Co., Inc., Kolsnaren, Sweden, 9750 bls. wood pulp; Gottesman & Co., Inc., Malmen, Sweden, 410 bls. wood pulp; Gottesman & Co., Inc., Beaverbrae, Czechoslovakia, 1599 bls. wood pulp.

New York Market Review

Office of the PAPER TRADE JOURNAL,
Wednesday, October 23, 1935.

Business in the local paper market is showing signs of improvement. Demand for the various standard grades of paper is persistent and the outlook for the balance of the year is considered promising. Prices are generally firm and there is much talk around of advances in the near future.

The newsprint paper market is rather unsettled, due mainly to the action of the Great Northern Paper Company in announcing an increase of $1 per ton for 1936, which is generally deemed insufficient to cover rising costs of production; and the sale of the Great Lakes Paper Company to a group of U. S. publishers.

Conditions in the fine paper market are satisfactory. Demand for book, cover, bond and ledger papers continues brisk. Prices are steady and unchanged. Tissues are moving into consumption in good volume. The coarse paper market is firmer. Kraft wrapping paper is in seasonal request. The paper board market is more active than of late.

Mechanical Pulp

The ground wood pulp market is steadier. Production in the United States, Canada and abroad is keyed to consumption, as nearly as possible, with the result that accumulations are not excessive and the statistical position of the industry continues sound. Prices are holding to formerly quoted levels.

Chemical Pulp

Sentiment in the chemical pulp market continues optimistic. The various foreign and domestic grades are displaying strength. Offerings of kraft pulp, in particular, are limited, and quotations are firm. The movement into consumption is well up to average for the time of year.

Old Rope and Bagging

The position of the old rope market is improving slightly. Demand for both domestic and imported old manila rope is better. Small mixed strings are moderately active. The bagging market is irregular. While scrap and gunny bagging are holding up well, roofing bagging is easier.

Rags

Paper mill demand for domestic rags is slightly better. New cotton rags are exhibiting a strong undertone, especially blue overalls, fancy shirt and No. 1 white shirt cuttings. No radical changes transpired in the imported rag market. The price situation is somewhat firmer, in some instances.

Waste Paper

Board mill demand for the lower grades of paper stock has quietened down and quotations are softer. The higher grades of waste paper are steady. Soft white shavings are firmer and are now quoted at from $1.75 to $1.85; No. 1 white news is offered at from $1.45 to $1.50; while strictly over-issue is selling at from .50 to .55, f.o.b. New York.

Twine

The local twine market is firmer. Demand for the various varieties is heavy, due to the approach of the Yuletide period, and the movement into consumption is well sustained. Quotations on both hard and soft fiber twines have again advanced.

H. & J. Shapiro Co. Add Tanonka Bond

Tanonka Bond, the watermarked paper of Thrift and Value, has just been added by the H & J. Shapiro Company, Inc., 40-46 West 25th Street, New York, N. Y., to their assortment of mill brand papers.

Tanonka Bond, states the manufacturer, Badger Paper Mills, Inc., is an exceptionally clean, extra-strong, all spruce sheet of outstanding value. It folds smoothly, prints uniformly and lies flat. It is adapted to all purposes for which a bond paper can be used, including printing, multigraphing, typing, writing and offset. And it is so economically priced that it can be used extensively for all business forms, sales literature and advertising mailings. A clear white and ten fresh, sparkling colors—in all standard sizes and weights—provide a wide variety of choices to answer every need.

Very attractive sample books are being issued to the trade, and can be had for the asking.

Mississippi Paper Co. Acquires Building

ST. LOUIS, Mo., October 21, 1935.—The Mississippi Valley Paper Company, 306 North Second street, wholesaler in coated and other printing papers, has taken over a five-story building at 21st street and Washington avenue, recently acquired for new storage and distributing plant and company offices. A general contract has been awarded to the T. Jarvis Company, Kinloch Building, St. Louis, for remodeling and improving structure for early occupancy, estimated to cost close to $20,000. The building aggregates 45,000 square feet of floor space, all of which will be used by the new owner, providing for considerable increase in former operating facilities. Building on North Second street, heretofore occupied by company, is to be demolished to make way for the new Jefferson National Expansion Memorial. J. Howard Tompkins is president.

Minnesota and Ontario Changes

The Minnesota and Ontario Paper Company announces the following changes in its sales staff: J. W. Magers, formerly of the Minneapolis Office, has been transferred to Chicago, Ill., in charge of the Chicago Sales Office.

H. J. Ratelle, formerly of the Minneapolis Office, has been transferred, with Chicago as his headquarters, on combined sales and service work.

Donald W. Rogers will continue as Merchants Sales Representative, with headquarters at Chicago.

The Chicago office will handle the territory comprising the lower half of Wisconsin, States of Illinois, Indiana and Ohio, the southern portion of Michigan and the States of Kentucky and Tennessee.

Miscellaneous Markets

Office of the PAPER TRADE JOURNAL,
Wednesday, October 23, 1935.

BLANC FIXE.—Conditions in the blanc fixe market are fairly satisfactory. Prices are holding to schedule. The pulp is quoted at from $42.50 to $45 per ton, in bulk; while the powder is selling at from 3½ to 3¾ cents per pound, in barrels, at works.

BLEACHING POWDER.—The position of the bleaching powder market is practically unchanged. Contract shipments are moving in fairly good volume. Prices continue steady. Bleaching powder is quoted at from $1.90 to $2.15 per 100 pounds, in drums, at works.

CAUSTIC SODA.—Some improvement transpired in the caustic soda market. The contract movement is well up to average. Solid caustic soda is still quoted at from $2.60 to $3.10; while the flake and ground are selling at from $3 to $3.05 per 100 pounds, at works.

CASEIN.—The casein market is firm. Domestic standard ground is quoted at 12½ and finely ground at 13; French standard ground at 14 and standard ground at 14½; Argentine standard ground at 13¾ and finely ground at 14¼ cents per pound, all in bags, car lot quantities.

CHINA CLAY.—Paper mill demand for china clay is fairly persistent. Prices are holding to formerly quoted levels. Imported china clay is selling at from $13.50 to $21 per ton, ship side; while domestic paper making clay is selling at from $6.50 to $12 per ton, at mine.

CHLORINE.—The chlorine market is exhibiting a strong undertone. Contract shipments are moving freely. Prices are holding to schedule. Chlorine is quoted at from $2 to $2.40 per 100 pounds, in tanks, or multi-unit cars, in ton lots, or over, at works.

ROSIN.—The rosin market is firmer. Paper making gum rosin is quoted at $4.90 and wood rosin at $4.75 per 280 pounds, gross weight, in barrels, at Savannah. Seventy per cent rosin size is selling at $2.67½ per 100 pounds, in tank cars, at works.

SALT CAKE.—Steadiness prevails in the salt cake market. Prices are holding to schedule. Salt cake is quoted at from $12 to $13; and chrome salt cake at from $11 to $12 per ton, at works. Imported salt cake is selling at from $12 to $13 per ton, ship side.

SODA ASH.—The soda ash market continues to display strength. Demand from the paper mills is brisk. Prices are firm. Quotations on soda ash, in car lots, at works, per 100 pounds, are still as follows: in bulk, $1.05; in bags, $1.20; and in barrels, $1.50.

STARCH.—Business in the starch market is fairly active. The contract movement is seasonal. Prices are holding to schedule. Special paper making starch is quoted at $3.59 per 100 pounds, in bags; and at $3.86 per 100 pounds, in barrels, at works.

SULPHATE OF ALUMINA.—The sulphate of alumina market is stronger. Prices continue steady to firm, in most instances. Commercial grades are quoted at from $1.35 to $1.50; while iron free is selling at from $1.90 to $2.05 per 100 pounds, in barrels, at works.

SULPHUR.—The sulphur market continues steady. Sulphur is quoted at $18 per long ton on orders of 1,000 tons, or over, on yearly contracts; and at $20 per ton on any smaller quantity over that period. On spot and near by car loads, the quotation is $21 per ton.

TALC.—Most of the business transacted in the talc market is routine. Prices are holding to formerly quoted levels. Domestic talc is quoted at from $16 to $18 per ton, at eastern mines; while imported talc is selling at from $23 to $30 per ton, on dock.

Market Quotations

Paper

(F. o. b. Mill)

Ledgers	6.50	@	—
Bonds	6.00	@	—
Index	6.00	@	—
Writings—			
Extra Superfine	6.50	@	—
Superfine	6.25	@	—
Tub sized	5.75	@	—
Engine sized	5.50	@	—
Book, Cased—			
S. & S. C.	5.35	@	5.75
S. & S. C. Litho.	5.60	@	6.00
M. F.	5.10	@	5.50
Coated and Enamel	5.90	@	6.55
Coated Litho	5.90	@	6.55
Tissues—Per Ream—			
White No. 1	.82½	@	.85
White No. 2	.67½	@	—
Anti-Tarnish M. G. only	1.00	@	—
Colored	.85	@	—
Kraft	.70	@	—
Manila	.67½	@	.70
Manila—			
No. 1 Jute	9.00	@	9.25
No. 2 Jute	7.75	@	8.50
No. 1 Wood	4.00	@	5.25
No. 2 Wood	3.50	@	4.00
Butchers	4.00	@	4.50
Fibre Papers—			
No. 1 Fibre	4.25	@	5.50
No. 2 Fibre	4.00	@	4.75
Common Bogus	1.50	@	3.00
Screenings	2.50	@	3.50
Glassine—			
Bleached	.11	@	—
Unbleached	.09	@	—

(The following Quotations are Delivered New York)

News, per ton—			
Roll, contract	40.00	@	—
Rolls, spot	40.00	@	—
Sheets	45.00	@	—
Kraft—			
No. 1 Northern	4.12½	@	4.75
Standard	4.00	@	—
Southern	3.87½	@	—
Boards—per ton—			
News	32.50	@	35.00
Chip	32.50	@	35.00
Sgl. Mla. Ll. Chip	45.00	@	47.50
Jute Lined Chip	45.00	@	47.50
Kraft Liners	52.50	@	—
White Patent Coated	55.00	@	57.50
Binders Boards	67.00	@	75.00

Mechanical Pulp

(On Dock, Atlantic Ports)

No. 1 Imported—			
Moist	21.00	@	22.00
Dry	21.00	@	22.00

(F. o. b. Mill)

No. 1 Domestic and Canadian	18.00	@	24.00

Chemical Pulp

(On Dock, Atlantic, Gulf and West Coast Ports)

Bleached Sulphite (Domestic and Foreign)—			
Division 1	2.60	@	—*
Division 2	2.55	@	—*
Division 3	2.50	@	—*
Prime Qualities—			
Class 1. All Prime Easy Bleaching	2.05	@	—*
Other Than Easy Bleaching—			
Class 2. Higher than Standard	2.00	@	—*
Class 3, Standard	1.95	@	—*
Class 4, Lower than Standard	1.90	@	—*

(On Dock, Atlantic Ports)

Kraft No. 1	1.75	@	1.80
Kraft No. 2	1.60	@	1.70

(F. o. b. Pulp Mill)

Kraft Domestic	1.75	@	1.80

(Delivered)

Soda Bleached	2.50	@	—

* Add 60 Cents per short ton, dock charges, for Albany; $2.00 for Lake Ports East and $3.00 for Lake Ports West of Mackinac Straits.

Domestic Rags

New Rags

(Prices to Mill f. o. b. N. Y.)

Shirt Cuttings—			
New White, No. 1	6.50	@	6.75
Silesias No. 1	4.50	@	4.75
New Unbleached	7.00	@	7.25
New Soft Blacks	3.00	@	3.25
Blue Overall	4.75	@	5.00
Fancy	2.50	@	2.75
Washables	1.90	@	2.15
Mixed Khaki Cuttings	3.00	@	3.25
O. D. Khaki Cuttings	3.75	@	4.00
Men's Corduroy	1.75	@	1.85
New Mixed Blacks	2.50	@	2.75

Old Rags

White, No. 1—			
Repacked	3.00	@	3.50
Miscellaneous	2.75	@	3.25
White, No. 2—			
Repacked	1.75	@	2.25
Miscellaneous	1.50	@	1.75
Thirds and Blues—			
Repacked	1.75	@	1.85
Miscellaneous	1.45	@	1.55
Roofing Rags—			
No. 1	1.55	@	1.60
No. 2	1.35	@	1.40
No. 3	.95	@	1.00
No. 4	.95	@	1.00
No. 5A	.90	@	1.00

Foreign Rags

New Rags

New Dark Cuttings	2.00	@	2.25
New Mixed Cuttings	1.80	@	1.90
New Light Silesias	3.75	@	4.00
Light Flannelettes	4.00	@	4.25
Unbleached Cuttings	Nominal		
New White Cuttings	6.50	@	6.75
New Light Oxfords	3.25	@	3.50
New Light Prints	2.75	@	3.00

Old Rags

No. 1 White Linens	7.50	@	8.00
No. 2 White Linens	6.50	@	7.00
No. 3 White Linens	4.50	@	5.00
No. 4 White Linens	2.25	@	2.50
No. 1 White Cotton	4.25	@	4.75
No. 2 White Cotton	3.25	@	3.75
No. 3 White Cotton	2.50	@	2.75
No. 4 White Cotton	1.90	@	2.15
Extra Light Prints	2.00	@	2.25
Ord. Light Prints	1.75	@	1.85
Med. Light Prints	1.55	@	1.65
Dutch Blue Cottons	2.00	@	2.25
French Blue Linens	2.30	@	2.40
German Blue Linens	2.15	@	2.25
German Blue Cottons	1.70	@	1.80
Checks and Blues	1.70	@	1.80
Linsey Garments	1.95	@	2.05
Dark Cottons	1.50	@	1.60
Old Shopperies	1.00	@	1.05
New Shopperies	1.25	@	1.35
French Blues	2.00	@	2.25

Old Rope and Bagging

(Prices to Mill f. o. b. N. Y.)

Gunny No. 1—			
Foreign	1.80	@	1.90
Domestic	1.60	@	1.70
Wool Tares, light	1.65	@	1.70
Wool Tares, heavy	1.80	@	1.90
Bright Bagging	1.65	@	1.70
Manila Rope—			
Foreign	1.85	@	2.00
Domestic	1.75	@	2.00
Mixed Strings	.85	@	1.00
New Burlap Cut	2.00	@	2.25
Hessian Jute Threads—			
Foreign	2.60	@	2.75
Domestic	2.80	@	3.00

Old Waste Papers

(F. o. b. New York)

Shavings—			
White Envelope Cuttings	2.45	@	2.55
Ordinary Hard White No. 1	2.10	@	2.15
Hard White No. 2	1.90	@	2.00
Soft White No. 1	1.75	@	1.85
Flat Stock—			
Stitchless	.65	@	.75
Over issue Mag	.65	@	.75
Solid Flat Book	.55	@	.60
Crumpled No. 1	.35	@	.40
Solid Book Ledger	1.50	@	1.65
Ledger Stock	.75	@	.80
New B. B. Chips	.30	@	.35
Manilas—			
New Env. Cut	1.70	@	1.80
New Cuttings	1.35	@	1.45
Print	Nominal		
Bogus Wrapper	.40	@	.50
Container	Nominal		
Old Kraft Machine—			
Compressed bales	1.10	@	1.20
News—			
No. 1 White News	1.45	@	1.50
Strictly Overissue	.50	@	.55
Strictly Folded	.32½	@	.35
No. 1 Mixed Paper	.25	@	.27½

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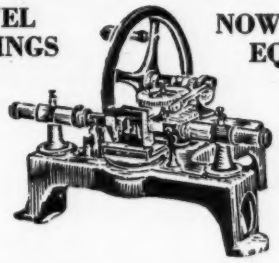

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Twines

(F. o. b. Mill)

(Soft Fibre)

Coarse Polished—

India	.12¾	@	.15¼
Belg. White Hemp	.13¾	@	.14¼
India Compress	.13¼	@	.13¾

Fine Polished—

Fine India	.21	@	.23
Special	.19	@	.21

Unpolished—

Box	.11½	@	.12
Paper Makers	.09	@	.13½
Tube Rope	.09½	@	.14½
Wall Paper	.10½	@	.14
Wrapping	.14½	@	.20½
Special	.14½	@	.15
Soft Fiber Rope	.11¾	@	.12¼

(Hard Fibre)

Bond	.11	@	.19½
Anchor	.10½	@	.12

CHICAGO

Paper

(F. o. b. Mill)

Rag Bond	.12	@	.50
Water Marked Sulphite Bond	.06¾	@	.11
Sulphite Bond	.05½	@	.11
Superfine Writing	.18	@	.24
No. 1 M. F. Book	.06½	@	.07½
No. 2 M. F. Book	.05½	@	.06¾
No. 1 S.&S.C. Book	.06¾	@	.07¾
No. 2 S.&S.C. Book	.05¾	@	.06½
Coated Book	.07	@	.12
Coated Label	.07	@	.08½
No. 1 Manila	.04¾	@	.05¾
No. 1 Fibre	.04¾	@	.05¾
No. 2 Manila	.04¾	@	.04¾
Butcher's Manila	.03¾	@	.03¾
No. 1 Kraft	4.75	@	5.00
Southern Kraft	3.88	@	4.25
No. 2 Kraft	3.88	@	4.25
Wood Tag Boards	.04¾	@	.06½
Sulphite Screenings	.03	@	.03¼
Manila Tissue	.05¾	@	.07
White Tissue	.07	@	.09

(Delivered Central Territory)

News, per ton—			
Rolls, contract	41.00	@	—
Sheets, open	46.00	@	48.50
Boards, per ton—			
Plain Chip	46.50	@	—
Sold News	50.00	@	—
Manila Lined Chip	55.00	@	—
Patent Coated	65.00	@	—
Container Lined—			
85 Test, per 1000 sq. ft.			1.70
100 Test, per 1000 sq. ft.			1.85

Old Papers

(F. o. b. Chicago)

Shavings—

No. 1 White Envelope Cuttings	1.70	@	2.00
No. 1 Hard White	1.40	@	1.65
No. 1 Soft White	1.25	@	1.50
Ledger & Writings	.70	@	.80
Solid Books	.60	@	.70
Blanks	1.00	@	1.05
Krafts	.80	@	.90
New Kraft Cuts	1.20	@	1.30
Manila Env. Cuts	1.25	@	1.30
Ex. No. 1 Manila	.90	@	1.00
Print Manila	.40	@	.50
Overissue News	.40	@	.45

Old Newspapers—

No. 1	.30	@	.35
No. 1 Mixed Paper	.25	@	.30

Roofing Stocks—

No. 1	30.00	@	—
No. 2	28.00	@	—

PHILADELPHIA

Paper

(Delivered Philadelphia)

Bonds	.05-9/10	@	.38
Ledgers	.06-9/10	@	.40
Writings—			
Fine No. 3	.05	@	.06
Superfine	.10	@	.12
Extra Fine	.15	@	.26
Fine	.15	@	.26
Fine, No. 2	.10	@	.25
Book, M. F.	.05¼	@	.06¾
Book, S. S. & C.	.05½	@	.07½
Book, Coated	.06½	@	.09
Coated Lithograph	.06¾	@	.08½
Label	.07	@	.11
No. 1 Jute Manila	6.25	@	—
Manila Sul., No. 1	5.25	@	—
Manila No. 2	3.75	@	—
No. 1 Kraft	5.00	@	—
Southern Kraft	4.75	@	—
Common Bogus	.03	@	—
News Print Rolls	40.00	@	—
Straw Board	40.00	@	45.00
News Board	40.00	@	—
Chip Board	37.50	@	—
Wood Pulp Board	70.00	@	85.00
Binder Boards—			
No. 1, per ton	75.00	@	80.00
No. 2, per ton	70.00	@	75.00
Carload lots	65.00	@	70.00
Tarred Felts—			
Regular	52.25	@	54.25
Slaters (per roll)	.84	@	.94
Best Tarred, 1-ply (per roll)	1.95	@	2.10
Best Tarred, 2-ply (per roll)	1.40	@	1.75
Best Tarred, 3 ply	2.00	@	2.25

Domestic Rags (New)

(Price to Mill, f. o. b. Phila.)

Shirt Cuttings—			
New White, No. 1	.06¼	@	—
New White, No. 2	.04½	@	—
Light Silesias	.04	@	—
Silesias, No. 1	.04	@	—
Black Silesias, soft	.03	@	—
New Unbleached	.06	@	—
Washable, No. 1	.01¾	@	—
Blue Overall	.04	@	—
Cottons—According to grades—			
Washable, No. 2	.02½	@	.04½
New Blue	.01½	@	—
Fancy	.01½	@	—
New Black Soft	.02	@	.03¾
New Light Seconds	.04	@	—
New Dark Seconds	1.10	@	—
Khaki Cuttings—			
No. 1 O. D.	.03	@	.04
No. 2 Mixed	.03	@	.04
Corduroy	.01¾	@	—
New Canvas	.03½	@	.04½
New Black Mixed	.02¼	@	.02½

Domestic Rags (Old)

White No. 1—			
Repacked	3.25	@	3.50
Miscellaneous	2.00	@	3.00
Thirds and Blues—			
Miscellaneous	1.50	@	1.75
Repacked	2.25	@	2.50
Black Stockings (Export)	4.00	@	4.50
Roofing Stock—			
Foreign No. 1	.90	@	1.10
Repacked	1.30	@	1.50

Bagging

(F. o. b. Phila.)

Gunny, No. 1—			
Foreign	1.50	@	—
Domestic	1.75	@	2.00
Manila Rope	2.50	@	—
Sisal Rope	.75	@	1.00
Mixed Rope	1.00	@	1.10
Scrap Burlaps—			
No. 1	1.75	@	1.80
No. 2	.80	@	.90
Wool Tares, heavy	2.75	@	—
Mixed Strings	1.00	@	1.10
No. 1 New Light Burlap	2.25	@	2.50
New Burlap Cuttings	2.00	@	2.25

Old Papers

(F. o. b. Phila.)

Shavings—

No. 1 Hard White	2.25	@	2.30
No. 2 Hard White	1.90	@	2.00
No. 1 Soft White	1.80	@	1.85
No. 2 Soft White	1.25	@	1.30
No. 1 Mixed	—	@	.75
Solid Ledger Stock	1.50	@	1.60
Writing Paper	1.00	@	1.10
No. 1 Books, heavy	.55	@	.60
No. 1 New Manila	1.50	@	—
Print Manila	.50	@	.60
Container Manila	—	@	.50
Old Kraft	1.00	@	—
No. 1 Mixed Paper	—	@	.30
Straw Board Chip	.40	@	—
Binders Board Chip	.40	@	—
Corrugated Board	.55	@	—
Overissue News	.60	@	—
Old Newspapers	.40	@	—

BOSTON

Paper

(F. o. b. Mill)

Ledgers—			
Sulphite	.06	@	.12½
Rag Content	.12	@	.30
All Rag	.36	@	.52½
Bonds—			
Sulphite	.07¾	@	.11
Rag Content	.12	@	.30
All Rag	.36	@	.65
Writings	.06½	@	.20
Superfines	.11	@	.31
Book, Super	.06	@	.09
Book, M. F.	.05½	@	.08½
Book, Coated	.08½	@	.18
Coated Litho	.09	@	.12
Label	.09½	@	.15
Jute Manila No. 1	.11	@	.13
Manila, Sul. No. 1	.04¾	@	.06½
Manila, Sul. No. 2	.03¾	@	.04½
No. 1 Kraft	.04¾	@	.05
No. 2 Kraft	.04½	@	.04½
(F. o. b. Boston)			
Southern Kraft	.03½	@	.04½
(F. o. b. destination in carload lots, f. o. b. mill in less than carload lots)			
Common Bogus	.02	@	.02¾
(Delivered New England points)			
News Print Rolls	39.50	@	—
Straw Board, rolls	.009	—	@35.00
Straw Board in Sheets, basis 35s to 70s	—	@	40.00
Filled News Board	40.00	@	45.00
Chip Board	37.50	@	40.00
Chip Board (Creasing)	37.50	@	40.00
Single Manila Lined Chip	47.50	@	52.50
Single White, Patent Coated News Board (Bender)	55.00	@	65.00
Wood Pulp Board	70.00	@	75.00
Binder Boards (Standard Grade)	67.00	@	75.00

Old Papers

(F. o. b. Boston)

Shavings—

No. 1 Hard White	2.00	@	2.20
No. 1 Soft White	1.75	@	1.90
No. 2 Mixed	.75	@	.80
Solid Ledger Books	1.40	@	1.50
Overissue Ledger Stock	1.15	@	1.30
Mixed Ledgers	.85	@	.90
No. 1 Books, heavy	.55	@	.65
No. 1 Books, light	.50	@	.60
Crumpled Stitchless Book Stock	.50	@	.60
Manila Env. Cuttings	1.30	@	1.40
No. 1 Old Manila	.60	@	.65
White Blank News	1.25	@	1.30
No. 1 Kraft	1.10	@	—
Mixed Papers	.22½	@	.25
Print Manila	.50	@	.60
Container Manilas	.27½	@	—
Old Newspapers	.25	@	.27½
Overissue News	—	@	.35
Box Board Chips	—	@	.25
Corrugated Boxes	.35	@	.37½
Screening Wrappers	.40	@	.45

Bagging

(F. o. b. Boston)

Manila Rope—			
Foreign	2.00	@	—
Domestic	2.00	@	—
Transmission Rope	.90	@	1.00
Jute Rope	1.50	@	1.60
Jute Carpet Threads	.65	@	.70
Gunny No. 1—			
Foreign	1.90	@	—
Domestic	1.50	@	—
Bleachery Burlap	4.00	@	4.50
Scrap Burlap—			
Foreign	1.85	@	1.90
Domestic	1.60	@	—
Scrap Sisal	1.30	@	1.35
Scrap Sisal for Shredding	1.35	@	1.50
Wool Tares, heavy	1.75	@	1.85
New Burlap Cuttings	1.75	@	1.90
Australian Wool Pouches	2.50	@	2.75
Heavy Baling Bagging	1.75	@	2.00
Paper Mill Bagging	1.25	@	—
Bagging No. 2	.90	@	.95

Domestic Rags (New)

(F. o. b. Boston)

Shirt Cuttings—			
New Light Prints	.01¾	@	.02
New White No. 1	.06	@	.06¼
New White No. 2	.04	@	.04¼
Silesias No. 1	.04½	@	—
New Black Silesias	.02½	@	.03
Soft Unbleached	.06½	@	.06¾
Blue Cheviot	—	@	4.65
Fancy	.0195	@	.021
Washable	.0165	@	.0170
Cottons—According to grades—			
Blue Overalls	.04½	@	.04¾
New Black, soft	.04	@	.04¼
Khaki Cuttings	.03½	@	.03¾
O. D. Khaki	.03	@	.03¼
Corduroy	.01¾	@	.02
New Canvas	—	@	.05
B.V.D. Cuttings	—	@	.06¼
Paper Mill Bagging	1.10	@	1.25

Domestic Rags (Old)

(F. o. b. Boston)

Canvas	.04½	@	—
White No. 1—			
Repacked	—	@	2.75
Miscellaneous	2.50	@	2.75
White No. 2—			
Repacked	1.90	@	2.00
Miscellaneous	2.00	@	2.25
Twos and Blues	1.50	@	2.00
Thirds and Blues—			
Repacked	1.37½	@	1.75
Miscellaneous	1.25	@	1.62½
Black Stockings	2.50	@	3.00
Roofing Stock—			
No. 1	1.50	@	1.60
No. 2	1.35	@	1.40
No. 3	1.05	@	1.15

Foreign Rags

(F. o. b. Boston)

Dark Cottons	1.75	@	—
New White Shirt Cuttings	5.50	@	6.00
Dutch Blues	2.25	@	2.50
New Checks & Blues	2.50	@	3.00
Old Fustians	1.90	@	—
Old Linsey Garments	2.10	@	—
New Silesias	4.75	@	—

TORONTO

Paper

(F. o. b. Mill)

Bond—			
No. 1 Sulphite	.11	@	—
No. 2 Sulphite	.08½	@	—
No. 1 Colored	.12	@	—
No. 2 Colored	.09	@	—
Ledgers (sulphite)—			
Ledgers, No. 1	.34½	@	—
Ledgers, No. 2	.25½	@	—
Writing	.09	@	.09½
Book—			
No. 1 M. F. (Carloads)	6.50	@	—
No. 2 M. F. (Carloads)	6.00	@	—
No. 3 M. F. (Carloads)	5.50	@	—
No. 1 S. C. (Carloads)	7.00	@	—
No. 2 S. C. (Carloads)	6.50	@	—
No. 3 S. C. (Carloads)	5.20	@	—
No. 1 Coated and Litho	12.00	@	—
No. 2 Coated and Litho	10.50	@	—
No. 3 Coated and Litho	9.50	@	—
Coated tinted	13.00	@	—
Wrapping—delivered—			
Rag Brown	4.75	@	—
White Wrap	3.50	@	—
"B" Manila	5.25	@	—
No. 1 Manila	5.40	@	—
Fiber	5.40	@	—
Kraft, M. F.	5.90	@	—
Kraft, No. 2	5.40	@	—

(F. o. b. Cars Toronto)

News, per ton—			
Rolls (contract)	39.50	@	—
Sheets	44.50	@	—

Pulp

Ground wood	27.00	@	—
Unbleached Sulphite	42.00	@	—
Book (Class 1)	58.00	@	—
Writing (Class 2)	59.00	@	—
Select (Class 3)	60.00	@	—

Old Waste Paper

(In carload lots, f. o. b. Toronto)

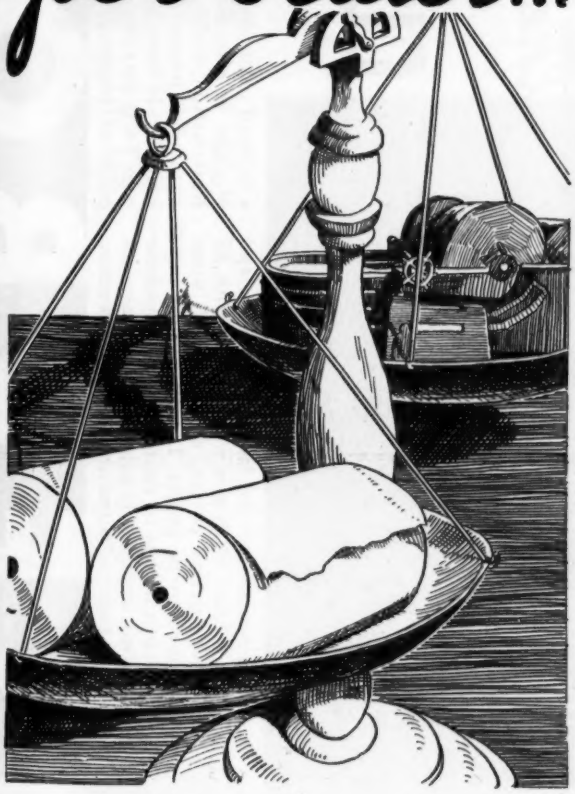
Shavings—			
White Env. Cut	2.00	@	2.30
Soft White	1.60	@	1.90
White Blk. News	1.25	@	1.40
Book and Ledger—			
Flat Magazine and Book Stock (old)	.90	@	1.00
Light and Crumpled Book Stock	.80	@	.90
Ledgers and Writings	1.00	@	1.05
Manilas—			
New Manila Cut	1.25	@	1.40
Printed Manilas	.50	@	.60
Kraft	1.00	@	1.60
News and Scrap—			
Strictly Overissue	.60	@	—
Strictly Folded	.50	@	—
No. 1 Mixed Paper	.40	@	—

Domestic Rags

(Price to mills, f. o. b. Toronto)

No. 1 White Shirt Cuttings	.06	@	—
Fancy Shirt Cuttings	.02	@	—

1620 lbs. MORE *per beater...*



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In one mill as little as 60 lbs. of P. Q. Silicate have yielded 30 lbs. more paper per load (54 beater loads per day x 30 lbs.—1620 lbs.). The difference between the cost of the silicate and the fibre saved, totaled over $4800 annually.

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TABLE OF CONTENTS

Crystal Tissue Installs Steam Unit 27
Weyerhaeuser Mill to Start in Spring 29
B & W—Tomlinson Black Liquor Recovery Process at Windsor Mills 30
Fort Howard Modernizes Power Equipment 31
Belt Conveyors Handling "Black Ash" 34
Oxford Alters Paper Machines 35
Allis-Chalmers Report Modernization 36
Rebuilt Fourdrinier Provides Removable Table Roll Section with Pitch and Shake Control While Running 38
To Start Work on New Zealand Mill 42
Flambeau Paper Installs Filter Plant 46
Byron Weston Steam Plant Improved 48
Arc Welding Builds Longer Life 50
Install Barking Drums at Bogalusa 52
Appleton Vortex Beater Is Improved 54
Outstanding Opportunities in Modernization 58
A Forward Step in Control of Paper Drying 62
"Stainless" in the Paper Industry 67
Stock Control Apparatus 70
Pacific TAPPI Meets at Seattle 73
Government Paper Bids and Awards 75
New Impco Equipment 77
Cutting Costs with V-Drives 79
Model ELN-6 Elevator Truck 80
Valley-Voith Screw Press 82
Heald Installs Biggs Digesters 82
Editorial 84
Production Ratio Report 85
Work on Union Bag Progressing 85

Technical Section

Some Recent Developments in Bleaching Chemical Wood Pulps 87
Modernized Coating Equipment 90
The Morphology of Cellulose Fibers as Related to the Manufacture of Paper 92
Imports of Paper and Paper Stock 101
New York Market Review 104
Miscellaneous Markets 106
Market Quotations 106

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